STIC-Biotech/ChemLib

160625

From:

Angell, Jon E

Sent:

Tuesday, July 26, 2005 7:17 PM

To: Subject:

STIC-Biotech/ChemLib Sequence Database Search Request 09/888,326

SEARCH REQUEST FORM Scientific and Technical Information Center

Examiner# : 78697 Art Unit : 1635

Phone Number: 571-272-0756

Date: 7/26/05

Serial Number: 09/888,326 (Weiner, G. et al.) Mailbox & Bldg/Room Location: REMSEN 2C18

Results Format Preferred (circle): Paper

I would like to have a <u>standard and interference</u> search performed using the following SEQ. ID NO. from application: 09/888,326

SEQ ID NO: 729 (nucleic acid ~25 nucleotides long)

Please perform standard and oligomer search of the commercial and pending nucleic acid databases using SEQ ID NO: 729

you can contact me by telephone or email if you have any questions.

Thanks, Eric

9. Eric Angell
Art Unit 1635
Office: REMSEN 2D20
mailbox: REM 2C18
571-272-0756

STAFF USE ONLY	
Searcher:Searcher Phone: 2- Date Searcher Picked up:	8
Searcher Prep/Rev. Time:	
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Type	of Search
NA#: 7	AA#:
Interference	: SPDI:
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Post-processing: Listing first 45 summaries

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Oligonucleotides containing at least 1 unmethylated CpG dinucleotide affect the immune response in a subject by activating natural killer cells or redirecting a subject's immune response from a Th2 to a Th1 response by inducing monocytic and other cells to produce Th1 cytokines. These nucleic acids containing at least 1 unmethylated CpG can be used as an adjuvant, specifically to induce an immune response against an

dinucleotide - encoding antigen

Aac87227 Methylate	Aac87234 Digoxigen	7237	2 Imn	919	86	8732 Huma	af9883	af85631 Vacc	af59	a£9917	af9914	976	a£9976	9913	9922	928	a£9975				0	2 CpG-c		ioge
4 AACB		4 AAC872		4 AAH5061	4 AAF9886	4 AAF9873	4 AAF988	4 AAF8563	4 AAF5950	4 AAF9917	4 AAF9914	4 AAF997	4 AAF9976	4 AAF9913	4 AAF992	4 AAF9928	4 AAF9975	4 AAF9928		4 AAF9911	4 AAH4449		6 ABK4809	
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ALIGNMENTS

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2 2 2 2 3 3 4 4 4 5 5 7	AAV60953 standard; DNA; 24 BP.
A S	AAV60953;
5 E	14-DEC-1998 (first entry)
X	
OE:	Unmethylated cytosine-guanine dinucleotide containing oligonucleotic
×	
₹	unmethylated CpG dinucleotide; immune response;
ž X	Th2 response; Th1 response; Th1 cytokine; hepatitis B.
SO	Synthetic.
X	
Nd	WO9840100-A1.
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PD	17-SEP-1998.
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PF	10-MAR-1998; 98WO-US004703.
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5 2	WPT: 1998-520792/44
í×	
PŢ	Use of oligonucleotides containing an unmethylated CpG dinucleotide
PT	ful as. e.g. adiuvant with antic
ΡŢ	ducing immune response in subject.
X	
SX XX	Disclosure, Page 12; 67pp; English.
ပ္ပ	Oligonucleotides containing at least 1 unmethylated CpG dinucleotide
ပ္ပ	affect the immune response in a subject by activating natural killer
ပ္ပ	ing a subj
ပ္ပ	response by inducing monocytic and other cells to produce Th1 cytok:
ပ္ပ	cleic acids containing at least 1
ပ္ပ	an adjuvant, specifically to induce an immune response against an

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cell;

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mediated
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 in, and are used particularly for hepatitis B virus infection
protein,
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Other 0 Ü; 0 ij, 14 Ö φ ີ່ວ 4 Ä 0 24 BP; Sequence

Gaps ö 24; Indel Length Pred. No. 0.0018; ; Mismatches 0. .. 0 Score 24; Pred. No. ; 100.0%; Conservative Similarity 24; Query Match Best Local Matches

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TCGTCGTTTTGTCGTTTTGTCGTT ò d

oppy Boom to SEG 10 WO. 24 24

RESULT 2 AAV47689

BP AAV47689 standard; DNA;

AAV47689;

(first entry)

20-NOV-1998

CpG dinucleotide. Unmethylated

ngitis; l sepsis; ease Unmethylated CpG dinucleotide; immune response; bacterial menir natural killer cell activation; NK cell; Th2 response; neonatal pulmonary disorder; asthma; environmentally induced airway discherial infection; endotoxaemia; therapy; cystic fibrosis; inflammatory bowel disease; ss.

Synthetic.

WO9837919-A1

03-SEP-1998

98WO-US003678. 25-FEB-1998;

97US-0039405P 28-FEB-1997;

(IOWA) UNIV IOWA RES FOUND

¥. Krieg Schwartz DA,

WPI; 1998-480941/41.

treating air flow Use of nucleic acids containing an unmethylated CpG - for subject having or at risk of having an acute decrement in inhibiting an inflammatory response.

English Disclosure; Page 13; 65pp;

This sequence represents an unmethylated CpG dinucleotide, and can be used in the method of the invention. The method is for treating a subject having, or at risk of having an acute decrement in air flow, comprising administering a nucleic acid sequence containing at least one dinucleotide affect an immune response in a subject by activating natural killer cells (NK) or redirecting a subject's immune response from a Th2 to a Th1 response by inducing monocytic and other cells to produce Th1 cytokines. They can be used to treat pulmonary disorders having an immunologic component, such as asthma or environmentally induced airway disease. They can also be used to treat diseases associated with Grampositive bacterial infections or endotoxaemia including bacterial constitute prenumnia, inflammatory bowel disease and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal abscess, haemorrhagic shock, disseminated intravascular coagulation, or an inflammatory response to lipopolysaccharide

U; 0 Other; 0 Ë 14 . Ö 9 ່ວ 4 Ä; 0 BP; 24 Sequence

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Length 24;
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of the invention. The ODNs contain at least one unmethylated CpG
dinucleotide, and have the formula: 5' NIXICGX2N2 3', where at least one
dinucleotide separates consecutive CpGs, X1 is adenine, guanine, or
thymine, X2 is cytosine or thymine, N is any nucleotide and N1+N2 is 0-26
bases with the provision that N1 and N2 does not contain a CCGG tetramer
or more than one CCG or CGG trimer OR 5' NXIX2CGX3X4N 3', where at least
one nucleotide separates consecutive CpGs, X1 and X2 are selected from
GpT, GpG, GpA, ApT and ApA, X3and X4 are selected from TpT or CpT, N is
any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2
does not contain a CCGG tetramer or more than one CCG or CGG trimer. The
CDNs activate lymphocytes in a subject and redirect a subject's immune
cells to produce Th1 cytokines, including IL-12, IFN-gamma and GM-CSF).
The ODNs can be used to treat or prevent an asthmatic disorder,
autoimmune diseases, in desensitisation therapy, as an artificial
adjuvant during antibody generation in a mammal such as a mouse or a
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larity 100.0%; Pred. No. 0.0018;
Conservative 0; Mismatches 0;
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24;
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Sequences AAZ41856-Z41949 are phosphorothioate CDG oligonucleotides which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune response in a subject comprising administering to a subject exposed to an antigen, an immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide to induce a synergistic antigen specific immune response. The methods are useful for treating cancer by stimulating an antigen specific immune response against a cancer antigen. The methods can also be used to treat neoplastic disorders in humans, including but not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma, and glioma. The methods are also useful for treating infectious diseases.

Carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma, and glioma. The methods and compositions may also be used to treat allergic diseases, e.g. asthma. The methods may also be used to treat allergic diseases, e.g. asthma. The methods may also be used to treat and include leukaemia, haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious, contegious diseases of sheep and goats caused by the bacterium corpusations hay also be treated and include leukaemia, haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious, contegious diseases of sheep and goats caused by the bacterium pseudotuberculosis, and contagious lung tumour of sheep caused by jaagsiekte may also be treated. CpG oligonucleotides enhance antibody such as monocytes and macrophages. CpG oligonucleotides enhance antibody dependent cellular cytotoxicity and can be used as an adjuvant in
                                                                                                                                                                                                        ; secretion; asthma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel synergistic combinations of immunostimulatory oligonucleotides and immunopotentiating cytokines are useful for stimulating the immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            challenge
                                                                                                                                                                                                          CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; human PBMC; immune response; cancer; HIV; bacterial disease; as neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine antigen presenting cell; infection; allergic disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            conjunction with tumour antigens to protect against a tumour
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100.0%; Pred. No. 0.0018;
                                                                                                                                                                  IL-12 secretion inducing CpG oligonucleotide 81
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                                     AAZ41936 standard; DNA; 24
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                                                                                                                                                             CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation; viral antigen; bacterial antigen; parasite; therapeutic; growth factor; toxins; tumour suppressor; cytokine; apoptotic protein; interferon; hormone; clotting factor; ligand; receptor; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunostimulatory effect of an antigen encoded by nucleic acid contained in a nucleic acid construct. The method involves determining the CpG-N and CpG-S motifs present in the construct, removing neutralising CpG (C-N) motifs and optionally inserting stimulatory CpG (CpG-S) motifs in the construct, thereby producing a nucleic acid construct having enhanced immunostimulatory efficacy. The method can be used for immunisation against viral antigens, e.g. from hepatitis B virus (HBV), bacterial antigens or an antigen derived from a parasite. They can also be used fexpression of a therapeutic polypeptide, e.g. growth factors, toxins, tumour suppressors, cytokines, apoptotic proteins, interferons, hormone clotting factors, ligands and receptors. (Updated on 20-MAR-2003 to correct PA field.)
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larity 100.0%; Pred. No. 0.0018;
Conservative 0; Mismatches 0
                                                                                                                                  Synthetic oligonucleotide with CpG-N motif #3.
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97US-0047233P
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                              24
                                                                                                       entry)
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                             AAV83715 standard; DNA;
                                                                                      (revised)
(first ent
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                                                                                                                                                                                                                                                                                                                                                                                                                                              GMBH
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QIAGEN
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20-MAY-1997;
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15-MAR-1999
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Matches 24
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AAZ48012
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igands and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            construct,
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                                                               tion; ODN;
h factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                n encoded
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hibitory;
lisease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       describe
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV74237-V74253 are oligodeoxynucleotide (ODN) primers used to describe method for enhancing the immunostimulatory effect of an antigen encoded by nucleic acid contained in a nucleic acid construct. The method involves determining the CpG-N and CpG-S motifs present in the construct removing neutralising CpG (CpG-N) motifs and optionally inserting stimulatory CpG (CpG-S) motifs in the construct, thereby producing a nucleic acid construct having enhanced immunostimulatory efficacy. The method can be used for immunisation against viral antigens, e.g. from hepatitis B virus (HBV), bacterial antigens or an antigen derived from parasite. They can also be used for expression of a therapeutic polypeptide, e.g. growth factors, toxins, tumour suppressors, cytokines apoptotic proteins, interferons, hormones, clotting factors, ligands ar receptors. (Updated on 20-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                             CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation viral antigen; bacterial antigen; parasite; therapeutic; growth factoxin; tumour suppressor; cytokine; apoptotic protein; interferon; hormone; clotting factor; ligand; receptor; oligodeoxynucleotide;
                                                                                                                                                                                                                                                                                                                                                                                        ing
                                                                                                                                                                                                                                                                                                                                                                              vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of an immunostimulatory CpG oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunostimulatory; stereoisomer; CpG oligonucleotide; Th2; Th1 allergic reaction; allergen; cancer antigen; cancer; immunoinh: inflammatory disease; inflammatory bowel disease; autoimmune di
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                                                                                                                                                                                                                                                                                                                                                                                                   expression of a therapeutic polypeptide.
                                                                                                                                                                                                                                                                                                                                                                          and stimulating
                                                                                                                                                                                                                                                                       LOEB RES
                                                                                                                                                                                                                                                                                                                                                                                      enhancing the immunostimulatory effect
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                                       DNA
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97US-0047233P
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                                       2022
                                                                                                                                                                                                                                                                                                                                                                          neutralising CpG
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(revised)
(first en
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                                      SOS-ODN
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0-MAY-1997;
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20-MAR-2003
15-MAR-1999
                                      motif
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Matches
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AAZ60933-Z61015 represent immunostimulatory stereoisomers of CpG oligonucleotides. The sequences are derived from generic nucleic acid sequence, from which immunoinhibitory sequences may also be derived. The immunostimulatory nucleic acids can be co-administered with an antigen to induce an antigen-specific immune response. The immunostimulatory nucleic acids can also be used in methods for redirecting a subject's immune cesponse from a Th2 to a Th1, for treating asthma, for desensitising a subject against the occurrence of an allergic reaction in response to contact with an allergen, for activating an immune cell, especially a lymphocyte or a dendritic cell expressing a cancer antigen or for treating cancer. The immunoinhibitory nucleic acid can be used to prevent an immune response, especially where the immune response in the subject are immunoinhibitory nucleic acid can be used to treat a subject having or at immune disease, gingivitis, psoriasis and sepsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunostimulatory and immunoinhibitory stereoisomers of oligonucleotides useful for immunotherapy of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6 G; 14 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 24; DB 3; 100.0%; Pred. No. 0.0018;
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(CPGI-) CPG IMMUNOPHARMACEUTICALS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oligonucleotides
                                                      WO200006588-A1
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                                                                                                               10-FEB-2000.
                                                                                                                                                                   27-JUL-1999;
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Synthetic.
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The present invention describes a method using CpG containing oligonucleotides (ONS) for regulating immune system remodeling and for regulating haematopoiesis. The method for inducing an antigen-specific immune response comprises: (1) administering an ON having a sequence including at least the formula (1); and (2) exposing the subject to an antigen specific immune response: 5° XICGX2 3° (1), where the produce an antigen specific immune response: 5° XICGX2 3° (1), where the constitution of a includes at least 8 mucleotides; C and G = unmethylated, and X1 and X2 = nucleotides. The method can be used for inducing an immune response against an antigen such as cells, cell extracts, proteins, polysaccharides, polysaccharides, polysaccharides, polysaccharides, polysaccharides, virales, bacteria, fungi, parasites and allergens. It can be used in subject at risk of developing cancer or an allergens. It can also be used for treating an infectious disease, allergic reaction. It can also be used for treating an infectious disease, allergic reaction. It can also be used for treating an infectious cardation exposure. It can also be used for treating an infectious is drug-induced, due to an autoimmune disorder such as idiopathic radiation exposure. It can also be used for treating anaemia such as drug radiation exposure. It can also be used for treating anaemia such as drug conduction edespite adequate iron stores, chronic disease such as kidney failure, and charaquetic radiation exposure. Axiangos resulting from accidental or therapeutic radiation exposure. Axiangos resulting from accidental or therapeutic radiation exposure. Axiangos resulting exemplification of the present invention
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100.0%; Pred. No. 0.0018;
ive 0; Mismatches
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99US-00241653
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24; Conservative
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                                                                                                                                                                            Lipford
                                                                                                                                                                                                                                                                                                       Example 1; Page
                                                                                                                                                                                                                                                                      immune
                                                                   14-MAY-1998;
02-FEB-1999;
                                14-MAY-1999;
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(CPGI-) CPG
18-NOV-1999
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The present invention describes a method using CpG containing oligonucleotides (ONS) as adjuvants for inducing an immune response. The method for inducing a mucosal immune response (MIR) comprises: (1)

administering to a mucosal immune response (MIR) comprises: (1)

can including at least the formula (I); and (2) exposing the subject to an antigen to induce the MIR, where the antigen is not encoded in a nucleic acid vector: 5'XIXZCGX3X43' (I), where C and G = unmethylated, and X1,

X2, X3 and X4 = nucleotides. The method can be used for treating a subject at risk of developing an allergic reaction, cancer or infectious disease. It can be used for treating asthmatic subjects, eczema, allergic rhinitis or coryza, hay fever, conjunctivitis, bronchial asthma,

C urticaria, food allergies or other atopic conditions. The antigen may be derived from infectious organisms such as infectious bacteria, viruses, parsaites or fungi. It can be used in humans or animals, e.g. bovine, caucosal adjuvants to induce immune responses at both local and remote sites against an antigen administered to the mucosal tissue. Both systemic and mucosal immunity are induced by mucosal delivery of the ONS.

AAZ47808 to AAZ47891 represent examples of immunostimulatory of the ONS.

Oligonucleotides given in the constant constant constants.
                                                                                                                                                                                                                                       containing oligonucleotides as adjuvants for inducing an immune
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                                                                                                         (LOEB-) LOEB HEALTH RES INST AT OTTAWA HOSPITAL (CPGI-) CPG IMMUNOPHARMACEUTICALS INC.
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                                                                                                                                                                                                                                                                                              116pp; English
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                                                                                                                                                                                                                                                                                              Page 25;
                                                                                                                                                                                                   WPI; 2000-062585/05.
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                                                                                                                                                               Mccluskie MJ,
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                                                                     22-MAY-1998;
                                                                                                                                                                                                                                                                                              Disclosure;
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02-DEC-1999
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The present invention describes an adjuvant composition (A) comprising an immunostimulant (I) absorbed on a metallic salt particle (II) that is practically free of antigen (Ag). Also described are: (1) preparation of a vaccine by mixing (A) with Ag; (2) vaccine comprising two major populations of complexes, one comprising (A) and the other Ag adsorbed on (II); and (3) kit comprising, in separate containers, monophosphoryl lipid A (MPL) adsorbed on metal salt and Ag adsorbed on metal salt. (A) has antiviral, antibacterial, antiprotozoal, antimalarial, anti-allergic and anticancer activities, and can be used to induce a specific immune response. (A) are used in preparation of vaccines for treatment or prevention of a wide range of viral, bacterial and protozoal infections, also allergy and cancers. By adsorbing (I) and Ag on separate particles, vaccines (including those containing many Ag) can be produced simply by mixing, rather than by sequential adsorption of many components on to the same particles (which is time-consuming, expensive and difficult to control). The component may be tested individually and failure of any one component does not require rejection of an entire batch of vaccine. The new vaccines are as effective as those prepared conventionally. The present sequence represents a CpG immunostimulatory oligonucleotide which is used in the exemplification of the present invention
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antigen,
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CpG oligonucleotide; antigen presenting cell; natural killer cell;
granulocyte; malaria; helminth disease; tick; mite; ss.
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                                                                                                                                                                                              Adjuvant composition comprising immunostimulant, useful for vaccines, deposited on metal salt particle that contains no which is present on separate particles.
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red. No. 0.0018;
Mismatches 0
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Similarity 100.0%; Bred. No. (
44; Conservative 0; Mismatche
                                                                                        (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS
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                                                                                                                                                                                                                                                                  Disclosure; Page 6; 37pp; English.
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                98GB-00022703.
98GB-00022709.
98GB-00022712.
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                                                                                                                                                                                                              vaccines, deposit
which is present
                16-OCT-1998;
16-OCT-1998;
16-OCT-1998;
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The present invention describes a method for treating and preventing parasitic infection by administration of unmethylated CpG oligonucleotides are able to stimulate the innate immune system via the activation of immune cells, such as antigen presenting cells, natural killer cells and granulocytes. The CpG oligonucleotides and the method can be used to treat and prevent parasitic diseases, such as malaria, helminth diseases, tick and mites in humans, animals and poultry. The oligonucleotides may be administered in conjunction with parasiticides or other therapeutic compounds after an conjunction with parasiticides or other therapeutic compounds after an conjunction with parasiticides or other therapeutic subseases which can be treated or prevented include those caused by plasmodium falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babbesia microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense, Schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania major, L. donovani, L. braziliensis, and L. tropica. The parasite is especially capable of causing malaria. The present sequence represents a parasitic infection preventing exemplary oligonucleotide sequence from the present invention
                                                                                                                                                                                                                                                                                                     which
                                                                                                                                                                                                                  antigen
                                                                                                                Treating and preventing parasitic infections using CpG oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      acid stimulating NK cell lytic activity
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                                                         Hoffman
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                                                        Davis HL,
                                                                                                                                           English.
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US SEC OF NAVY.
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UNIV IOWA RES FOUND
                                                                                                                                           74pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; DNA; 24
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                                                         Krieg AM,
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                                                      Gramzinski RA,
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                                                                                                                                           Disclosure;
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Ω
derived from duck hepatitis
   to form a particle
monomers
protein
   are assembled
nucleocapsid
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English 23; 67pp; 7; Page Claim

not ; acid, which of these The present sequence represents an immune stimulatory nucleic acid, which is included in the particles of the invention. The structure of these particles is based in part on duck hepatitis B viral core antigen (HBcAg). The particles are used for hapten presentation so as to elicit an immune response. The particles are formed by assembling recombinant forms of duck HBcAg, and are highly immunmogenic. Native duck HBcAg particles are 32-34 nm particles composed of 240 identical subunit monomers, and are very similar to human HBcAg. However, duck HBcAg is not cross-reactive with human HBcAg. Recombinant forms of duck hepatitis B virus elicit a TH1 (T helper cell) immune response. The duck HBcAg particles are used to elicit an immune response in a patient.

Sequence 24 BP; 0 A; 4 C; 6 G; 14 T; 0 U; 0 Other;

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Gaps
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24;
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Length
Score 24; DB 3; 1
Pred. No. 0.0018;
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Query Match
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standard; DNA; 04-DEC-2000 AAA63586; AAA63586 RESULT 13 AAA63586

al core antigen; HBcAg; hapten presentation; immune responsimmune response; gene therapy; ss. Immune stimulatory nucleic WO200046365-A1. Unidentified. 10-AUG-2000 THI

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acid stimulating cytokine production.

99US-0118526P. 2000WO-US002413 02-FEB-2000; 02-FEB-1999;

COMMONWEALTH UNIV VIRGINIA COMM BIOCACHE PHARM LLC (UYVI-) (BIOC-)

DL; Peterson TP, Coleman

2000-532900/48

The present sequence represents an immune stimulatory nucleic acid, which is included in the particles of the invention. The structure of these particles is based in part on duck hepatitis B viral core antigen (HBcAg). The particles are used for hapten presentation so as to elicit an immune response. The particles are formed by assembling recombinant forms of duck HBcAg, and are highly immunmogenic. Native duck HBcAg particles are 32-34 nm particles composed of 240 identical subunit irus, response comprises duck hepatitis B v A composition useful for inducing an immune nucleocapsid protein monomers, derived from are assembled to form a particle. Claim 7; Page 22; 67pp; English.

Gaps

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monomers, and are very similar to human HBcAg. However, duck HBcAg is cross-reactive with human HBcAg. Recombinant forms of duck hepatitis virus elicit a TH1 (T helper cell) immune response. The duck HBcAg particles are used to elicit an immune response in a patient. Polynucleotides encoding the particles may be used in gene therapy protocols
                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                             acid stimulating B cell proliferation.
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                                                                                                       0 U; 0 Other;
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Mismatches
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0.0018;
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Pred. No.
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                                                                                                                                                                                              s disease;
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1 (bases 1 to 24)
Krieg, A.M. and Weiner, G.
Methods and products for stimulating the imimunotherapeutic oligonucleotides and cytcimunotherapeutic oligonucleotides.

Patent: US 6218371-A 90 17-APR-2001;
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Krieg, A.M. and M
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1 (bases 1 to 24)

Wagner, H. and Lipford, G.

Method of controlling hematopoiesis by using CpG oligonucle Patent: JP 2002514397-A 90 21-MAY-2002;

CORY PHARMACEUTICALS GMBH, CORY PHARMACEUTICALS GROUP INC OS Artificial Sequence
PD 21-MAY-2002
PP 14-MAY-1999 JP 2000547969
PF 14-MAY-1999 US 60/085516,02-FEB-1999 US 09/24169
PR 14-MAY-1998 US 60/085516,02-FEB-1999 US 09/24169
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BD261142
JP 2002510644-A/90.
synthetic construct
synthetic construct
synthetic construct
other sequences; artificial sequences.
1 (bases 1 to 24)
Krieg, A.M. and Weiner, G.
Methods and products for stimulating the immune system
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Location/Qualifiers
                                                                                                                                                                       Length 24;
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0.00066;
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                                                                                                                                                                     Score 24; DB Pred. No. 0.0; Mismatches
 Immunostimulatory nucleic acid mole
Patent: US 6239116-A 46 29-MAY-2001
Location/Qualifiers
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                                                                                    /organism="unknown"
/wol_type="unassigned DNA"

    .24
    /organism="synthetic composition of the 
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Method of controlling
BD205600
BD205600.1 GI:33015
JP 2002514397-A/90.
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synthetic construct
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BD261142
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immunotherapeutic oligonucleotides and cytokines
Patent: JP 2002510644-A 90 09-APR-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
OS Artificial Sequence
PN JP 2002510644-A/90
PD 09-APR-2002
PF 02-APR-1999 JP 2000542030
PF 02-APR-1999 US 60/080729
PR 03-APR-1998 US 60/080729
PR ARTHUR M KRIEG, GEORGE WEINER
PC A61K38/00, A61K31/7088, A61K39/00, A61P15/00, A61P35/00, A61P37/04,
PC Synthetic Sequence
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39,
PC A61P31/00, A61P35/00, A61P37/00
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immunostimulatory synthetic oligonucleotide
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Location/Qualifiers
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Location/Qualifiers
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Pred. No. 0.00066;
Mismatches 0;
                                                                                                                                                                                                                                                                                                core 24; DB 6; red. No. 0.00066; Mismatches 0;
                                                                                                                                                                                                                               /organism="synthetic construct"
/mol_type="genomic DNA"
/db xref="taxon:32630"
                                                                                                                                                                Location/Qualifiers
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                                                                                                                                                                                                                                                                                                 Score 24;
Pred. No.
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DEFINITION ACCESSION VERSION

RESULT 6 BD261563 LOCUS

ORGANISM

KEYWORDS SOURCE

REFERENCE AUTHORS TITLE JOURNAL

COMMENT

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17-JUL-2003
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Krieg, A.M.

Stereoisomer of CpG oligonucleotide and method relating thereto
Patent: JP 2002521489-A 77 16-JUL-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
OS Artificial Sequence
PN JP 2002521489-A/77
PD 16-JUL-2002
PF 27-JUL-1999 JP 2000562385
PF 27-JUL-1999 US 60/094370
PI ARTHUR M KRIEG
PC A61K31/711, A61P11/06, A61P17/00, A61P27/02, A61P29/00, A61P31/00,
                                                                                                                                                            HOFFMAN
A61K31/711, A61K9/127, A61K38/00, A61K38/22, A61K45/00, A61P31/00, A61P33/00//
C12N15/09, A61K37/02, A61K37/24, C12N15/00
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Key
Location/Qualifiers
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1. .24
/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
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A61P35/00,A61P37/04,A61P37/06,A61P37/08
Synthetic
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Location/Qualifiers
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Stereoisomer of CpG oligonucleotide and me BD270804.1 GI:33080572
JP 2002521489-A/77.
synthetic construct
synthetic construct
other sequences; artificial sequences.
1 (bases 1 to 24)
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Pred. No. 0.00066;
Mismatches 0;
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Mismatches 0;
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                             Artificial Sequence
JP 2002513763-A/77
14-MAY-2002
06-MAY-1999 JP 2000546780
06-MAY-1998 US 60/084512
ROBERT A GRAMZINSKI, ARTHUR M KD
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Methods for the prevention and treatment of parasitic infections and related diseases using CPG oligonucleotides.

N BD267904.

BD267
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 24)
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Vaccine
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Vaccine
Patent: JP 2002542203-A 4 10-DEC-2002;
SMITHKLINE BEECHAM BIOLOGICALS SA
OS Homo sapiens (human)
PN JP 2002542203-A/4
PD 10-DEC-2002
PF 04-APR-2000 JP 2000611936
PR 19-APR-1999 GB 9908885.8, 29-APR-1999 US 09/3018;
PC 19-APR-1999 GB 9908885.8, 29-APR-1999 US 09/3018;
PC A61R39/20, A61R39/10, A61R39/10, A61R39/12, A61R39/10, A61P31/08, A61R39/112, A61P31/08, A61P31/08, A61P31/09, A6
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/organism="Homo sapiens"
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Best Local Similarity 100.0%;
Matches 24; Conservative 0;
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Vaccine.
BD261563
BD261563.1 GI:330713
JP 2002542203-A/4.
Homo sapiens (human)
Homo sapiens
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RESULT 7 BD267904

ACCESSION VERSION KEYWORDS

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Homo sapiens (human)
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                                                                                                                                       Wagner, H., Kretzschmar, H. and Sethi, S.
Use of cpg nucleic acids in prion-disease
Patent: WO 2004007743-A 19 22-JAN-2004;
Coley Pharmaceutical GmbH (DE)
Location/Qualifiers
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Pred. No. 0.00066;
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/organism="synthetic construct'/mol_type="unassigned DNA"
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WO2004019974
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Vaccine
Patent: WO 2004019979-A 47 11-
GLAXO GROUP LIMITED (GB)
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                 Craniata, Vertebrata, Euteleostomi,
Catarrhini, Hominidae, Homo.
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Monoclonal antibody production by ebv transformation of
Patent: WO 2004076677-A 1 10-SEP-2004;
Institute for Research in Biomedicine (CH)
Location/Qualifiers
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Vaccine
Patent: WO 2004019974-A 65 11-MAR-2004;
GLAXO GROUP LIMITED (GB); GlaxoSmithKline
Location/Qualifiers
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Similarity 100.0%; Score 24; DB 6;
Similarity 100.0%; Pred. No. 0.00066;
24; Conservative 0; Mismatches 0;
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CQ815138.1 GI:47604216
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/organism="Homo sapiens"
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Vaccine
Patent: WO 2004031222-A 27 15-3
GLAXO GROUP LIMITED (GB)
LOCATION/Qualifiers
Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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Krieg, A.M., Davis, H.L., Wu, T. and Schorr, J.
Vectors and methods for immunization or therapeutic protocols
Patent: US 6339068-A 3 15-JAN-2002;
Location/Qualifiers
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Krieg, A.M., Davis, H.L., Wu, T. and Schorr, J.

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Vectors and methods for immunization or therapeutic protocc
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Location/Qualifiers
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; Mismatches 0;
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66 from patent US 6339068
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Sequence 3 from patent US 6339068.
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AR182831.1 GI:20226038
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RESULT 2
US-09-286-098-90
; Sequence 90, Application US/09286098
; Patent No. 6218371
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Weiner, George
; TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
; TITLE OF INVENTION: Cytokines
; TITLE OF INVENTION: Cytokines
; FILE REFERENCE: C1039/7026/HCL
; CURRENT APPLICATION NUMBER: US/09/286,098
; CURRENT FILING DATE: 1999-04-02
; EARLIER APPLICATION NUMBER: US 60/080,729
; EARLIER FILING DATE: 1998-04-03
; NUMBER OF SEQ ID NOS: 105
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   28242, A
29425, A
1338, Ap
11817, A
7, Appli
3537, Ap
12471, A
9, Appli
13450, A
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APPLICANT: Krieg, Arthur M.
APPLICANT: Schwartz, David A.
TITLE OF INVENTION: USE OF NUCLEIC ACIDS CONTAINING
TITLE OF INVENTION: UNMETHYLATED CpG DINUCLEOTIDE IN THE TREATMENT
TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS
FILE REFERENCE: C1039/7011
CURRENT APPLICATION NUMBER: US/09/030,701B
CURRENT FILING DATE: 1998-02-25
PRIOR APPLICATION NUMBER: 60/039,405
PRIOR FILING DATE: 1997-02-28
NUMBER OF SEQ ID NOS: 65
SOFTWARE: FastSEQ for Windows Version 3.0
    Sequence
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red. No. 0.00042;
Mismatches 0:
US-09-270-767-28242

US-09-270-767-29425

US-09-107-532A-1338

US-09-270-767-11817

US-09-248-796A-3537

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US-09-270-767-12471

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US-09-302-626B-9

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US-09-370-626B-9

US-09-370-626B-9

US-09-370-767-13450

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US-09-030-701-6
; Sequence 6, Application US/09030701)
; Patent No. 6214806
; GENERAL INFORMATION:
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ORGANISM: Artificial
FEATURE:
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Sequence 3, Application US/09082649B
Patent No. 6339068
GENERAL INFORMATION:
APPLICANT: Davis, Heather L.
APPLICANT: Schorr, Joachim
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for Immunization or
TITLE OF INVENTION: Therapeutic Protocols
FILE REFERENCE: C1039/7009
CURRENT APPLICATION NUMBER: US/09/082,649B
CURRENT FILING DATE: 1998-05-20
PRIOR APPLICATION NUMBER: US 60/047,233
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 85
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Best Local Similarity 100.0%; Pred. No. 0.00042;
Matches 24; Conservative 0; Mismatches 0;
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US-09-082-649B-66
; Sequence 66, App.
; Patent No. 63390
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ENGTH: 24
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TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 4225 Executive Square, Suite 1400
CITY: La Jolla
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
TELEFAX: 619/678-5099
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
LENGTH: 24 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII text CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/960,774 FILING DATE: 30-October-1997 CLASSIFICATION: 514 PRIOR APPLICATION NUMBER: U.S. Serial No.
                                                                                      FEATURE:
OTHER INFORMATION: Synthetic Sequence
S-09-286-098-90
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; Sequence 46, Application US/08960774
; Patent No. 6239116
; GENERAL INFORMATION:
; APPLICANT: Krieg et al.,
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                                                        TYPE: DNA ORGANISM: Artificial Sequence
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October 30,
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CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,
                                                                                                                                                                          Similarity 100 24; Conservative
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ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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MOLECULE TYPE:
US-08-960-774-46
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CITY: L
STATE:
     SOFTWARE: Fa
SEQ ID NO 90
LENGTH: 24
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Therapeutic Protocols
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Pred. No. 0.00042;
0; Mismatches 0;
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NAME/KEY: misc_feature;
LOCATION: (0)...(0);
OTHER INFORMATION: Backbone is a phosphoroth;
OTHER INFORMATION: chimera.
US-09-082-649B-66
                                    GENERAL INFORMATION:

APPLICANT: Davis, Heather L.

APPLICANT: Krieg, Arthur M.

APPLICANT: Schorr, Joachim

APPLICANT: Wu, Tong

TITLE OF INVENTION: Vectors and Methods for

TITLE OF INVENTION: Therapeutic Protocols

FILE REFERENCE: C1039/7009

CURRENT APPLICATION NUMBER: US/09/082,649B

CURRENT FILING DATE: 1998-05-20

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20
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SOFTWARE: FastSEQ for Windows Version
66, Application US/09082649B
5. 6339068
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Best Local Similarity 100.0%
Matches 24; Conservative
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RESULT 4 US-09-082-649B-3

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US-09-690-921-4
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LENGTH: 24
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Sequence 84, Application US/09191170

Patent No. 6429199

GENERAL INFORMATION:

APPLICANT: Krieg, Arthur M.

APPLICANT: Hartmann, Gunther

TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules

FILE REFERENCE: C1039/7017

CURRENT APPLICATION NUMBER: US/09/191,170

CURRENT FILING DATE: 1998-11-13

EARLIER FILING DATE: 1997-10-30

EARLIER PILING DATE: 1996-10-30

EARLIER FILING DATE: 1996-10-30

EARLIER FILING DATE: 1996-07-15

EARLIER FILING DATE: 1994-07-15
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                                                                                            RESULT 6
US-09-325-193A-77
; Sequence 77, Application US/09325193A
; Patent No. 6406705
; GENERAL INFORMATION:
; APPLICANT: Davis, Heather L.
; APPLICANT: Schorr, Joachim
; APPLICANT: Krieg, Arthur M.
; TITLE OF INVENTION: Use of Nucleic Acids Containing
; TITLE OF INVENTION: Unmethylated CpG Dinucleotide as an
; FILE REFERENCE: C1039/7025/HCL
; CURRENT APPLICATION NUMBER: US/09/325,193A
; CURRENT FILING DATE: 1999-06-03
; PRIOR PILING DATE: 1998-09-16
; PRIOR FILING DATE: 1998-03-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        th Similarity 100.0%; Score 24; DB 3; 1 Similarity 100.0%; Pred. No. 0.00042; 24; Conservative 0; Mismatches 0;
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SOFTWARE: FastSEQ for Windows Version
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SOFTWARE: FastSEQ for Windows Version
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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SOFTWARE: Far
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US-09-191-170-95

i Sequence 95, Application US/09191170

i Patent No. 6429199

i GENERAL INFORMATION:

APPLICANT: Hartmann, Gunther

TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules

TITLE OF INVENTION: for Activating Dendritic Cells

TITLE OF INVENTION: for Activating Dendritic Cells

FILE REFERENCE: C1039/7017

CURRENT APPLICATION NUMBER: US/09/191,170

CURRENT FILING DATE: 1998-11-13

EARLIER FILING DATE: 1998-11-13

EARLIER FILING DATE: 1997-10-30

EARLIER FILING DATE: 1996-10-30

EARLIER FILING DATE: 1996-2-07

EARLIER FILING DATE: 1995-02-07

EARLIER FILING DATE: 1994-07-15

NUMBER OF SEQ ID NOS: 99

NUMBER OF SEQ ID NOS: 99

NUMBER OF SEQ FOR Windows Version 3.0
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Pred. No. 0.00042;
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Score 24; DB 3; 1
Pred. No. 0.00042;
Mismatches 0;
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OTHER INFORMATION: synthetic oligonucleotide
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Patent No. 6544518
GENERAL INFORMATION:
APPLICANT: Friede, Martin
APPLICANT: Gerard, Catherine
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             Similarity 100
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OTHER INFORMATION: m5c
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OTHER INFORMATION: m5c
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OTHER INFORMATION: m5c
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US-09-965-101-66

Sequence 6, Application US/09965101

Patent No. 6821957

GENERAL INFORMATION:

APPLICANT: Davis, Heather L.

APPLICANT: Krieg, Arthur M.

APPLICANT: Schorr, Joachim

APPLICANT: Wu, Tong

TITLE OF INVENTION: Therapeutic Protocols

CURRENT APPLICATION NUMBER: US/09/965,101

CURRENT APPLICATION NUMBER: US 09/082,649

PRIOR FILING DATE: 1998-05-20

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

NUMBER OF SEQ ID NOS: 84

SOFTWARE: FASELSEQ for Windows Version 3.0
                                 Immunization
                                                                                                                                                                                                                                                                                                                                                                         FEATURE:

COTHER INFORMATION: synthetic oligonucleotide

NAME/KEY: misc_feature

LOCATION: (0)...(0)

COTHER INFORMATION: Has a phosphorothioate backbone

US-09-965-101-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 24; DB 4; I Pred. No. 0.00042; 0; Mismatches 0;
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for Imm
TITLE OF INVENTION: Therapeutic Protocols
FILE REFERENCE: C1039/7057 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/965,101
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: US 60/047,233
PRIOR FILING DATE: 1998-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 84
SOFTWARE: FastSEQ for Windows Version 3.0
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Similarity 100.0%;
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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LOCATION: (0)...(0)
OTHER INFORMATION: Backbone
OTHER INFORMATION: chimera.
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LENGTH: 24
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LENGTH: 24
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; Sequence 46, Application US/09337619
; Patent No. 6653292
; GENERAL INFORMATION:
    APPLICANT: Krieg, Arthur M.
    TITLE OF INVENTION: Methods of Treating Cancer Using
    TITLE OF INVENTION: Immunostimulatory Oligonucleotides
; TITLE OF INVENTION NUMBER: US/09/337,619
; EARLIER APPLICATION NUMBER: US/08/738,652
; EARLIER FILING DATE: 1996-10-30
; EARLIER FILING DATE: 1996-10-30
; EARLIER FILING DATE: 1996-07-15
; EARLIER FILING DATE: 1994-07-15
; NUMBER OF SEQ ID NOS: 123
; SOFTWARE: FastSEQ for Windows Version 3.0
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100.0%; Pred. No. 0.00042;
ive 0; Mismatches 0;
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                                       CURRENT APPLICATION NUMBER: US/09/690,921
CURRENT FILING DATE: 2000-10-18
PRIOR APPLICATION NUMBER: PCT/EP00/02920
PRIOR FILING DATE: 2000-04-04
PRIOR APPLICATION NUMBER: 09/301,829
PRIOR FILING DATE: 1999-04-29
PRIOR FILING DATE: 1999-04-29
PRIOR FILING DATE: 1999-04-19
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US-09-965-101-3
; Sequence 3, Application US/09965101
; Patent No. 6821957
; GENERAL INFORMATION:
; APPLICANT: Davis, Heather L.
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Schorr, Joachim
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         INVENTION:
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                               FILE REFERENCE:
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US-09-337-619-46
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Pred. No. 0.0004;
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Pred. No. 0.0004;
Mismatches
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                                                                                                                                                                                                                                                                     FILE REFERENCE: C1039/7009
CURRENT APPLICATION NUMBER: US/09/082,649B
CURRENT FILING DATE: 1998-05-20
PRIOR APPLICATION NUMBER: US 60/047,233
PRIOR FILING DATE: 1997-05-20
PRIOR APPLICATION NUMBER: US 60/047,209
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 85
SOFTWARE: FastSEQ for Windows Version 3.0
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APPLICANT: Krieg, Arthur M.
APPLICANT: Schorr, Joachim
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for I
TITLE OF INVENTION: Therapeutic Protocols
FILE REFERENCE: C1039/7057 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/965,101
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: US 60/047,233
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 84
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                       Sequence 15, Application US/09082649B; Patent No. 6339068; GENERAL INFORMATION:
APPLICANT: Davis, Heather L.
APPLICANT: Krieg, Arthur M.
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong; TITLE OF INVENTION: Therapeutic Protoc
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Patent No. 6821957
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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APPLICANT: Krieg, Arthur M.

TITLE OF INVENTION: Methods of Treating Cancer Using

TITLE OF INVENTION: Immunostimulatory Oligonucleotides

FILE REFERENCE: C1039/7021/HCL

CURRENT APPLICATION NUMBER: US/09/337,619

CURRENT FILING DATE: 1999-06-21

EARLIER APPLICATION NUMBER: US 08/960,774

EARLIER APPLICATION NUMBER: US 08/738,652

EARLIER APPLICATION NUMBER: US 08/386,063

EARLIER FILING DATE: 1996-10-30

EARLIER PILING DATE: 1995-02-07

EARLIER FILING DATE: 1994-07-15

NUMBER OF SEQ ID NOS: 123

SOFTWARE: FastSEQ for Windows Version 3.0
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Pred. No.
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                                                                                                                  Sequence 123, Application US/09337619
Sequence 123, Application US/09337619
Patent No. 6653292
GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
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ORGANISM: Artificial Sequence
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/cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
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/cgn2_6/ptodata/2/pubpna/USO9A_PUBCOMB.seq:*
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ALIGNMENTS

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RESULT 1
US-09-760-506-4
Sequence 4, Application US/09760506
Sequence 4, Application US/09760506
Sequence 4, Application US20010034330A1
GENERAL INFORMATION:
APPLICANT: Kensil, Charlotte
TITLE OF INVENTION: Saponin and Methods Thereof
TITLE OF INVENTION: Saponin and Methods Thereof
TITLE OF INVENTION: Saponin and Methods Thereof
CURRENT FILING DATE: 2002-01-12
PRIOR APPLICATION NUMBER: 60/200,853
PRIOR PILING DATE: 2000-01-13
PRIOR PELING DATE: 2000-01-13
PRIOR APPLICATION NUMBER: 60/128,608
PRIOR PILING DATE: 1999-04-08
PRIOR PILING DATE: 1999-04-08
PRIOR PILING DATE: 1999-08-10
PRIOR PILING DATE: 1999-08-10
PRIOR PILING DATE: 1999-08-10
PRIOR APPLICATION NUMBER: 60/095,913
PRIOR PILING DATE: 1998-08-10
PRIOR PILING DATE: 1998-08-10
PRIOR FILING DATE: 1998-08-10
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ORGANISM: Artificial
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US-09-824-468-90
i Sequence 90, Application US/09824468
i Patent No. US20020064515A1
i GENERAL INFORMATION:
i APPLICANT: Weiner, George
i TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
i TITLE OF INVENTION: Oytokines
i TITLE OF INVENTION: Oytokines
i TITLE OF INVENTION: UNBER: US/09/824,468
i FILE REPERENCE: C1039/7026/HCL
cURRENT APPLICATION NUMBER: US/09/824,468
i CURRENT APPLICATION NUMBER: US/09/86,098
i PRIOR APPLICATION NUMBER: 09/286,098
i PRIOR FILING DATE: 1999-04-02
i NUMBER OF SEQ ID NOS: 105
i SOFTWARE: FastSEQ for Windows Version 3.0
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APPLICANT: McCluskie, Michael J.
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for
TITLE OF INVENTION: Inducing a Th2 Immune Response
FILE REFERENCE: C1040/7010/HCL/MAT
CURRENT APPLICATION NUMBER: US/09/768,012
CURRENT FILING DATE: 2001-01-22
PRIOR APPLICATION NUMBER: US 60/177,461
PRIOR FILING DATE: 2000-01-20
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ive 0; Mismatches (
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LOCATION: (2)...(2)
OTHER INFORMATION: Cytosine is unmethylated.
NAME/KEY: modified base
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OTHER INFORMATION: Cytosine is unmethylated.
NAME/KEY: modified base
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COTHER INFORMATION: Cytosine is unmethylated;
NAME/KEY: modified base;
LOCATION: (21)...(21);
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US-09-768-012-4
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SOFTWARE: FastSEQ for Windows Version 3
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ORGANISM: Artificial Sequence
FEATURE:
                Conservative
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Patent No. US20010044416A1
GENERAL INFORMATION:
APPLICANT: Davis, Heathe
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Sequence 77, Application US/09895007A;
GENERAL INFORMATION:
APPLICANT: Schetter, Christian
APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACIDS FOR THE
TITLE OF INVENTION: TREATMENT OF ANEMIA, THROMBOCYTOPENIA, AND
FILE REFERENCE: C1041/7014 (AWS)
CURRENT APPLICATION NUMBER: US/09/895,007A
CURRENT FILING DATE: 2001-06-28
PRIOR FILING DATE: 2000-06-28
NUMBER OF SEQ ID NOS: 133
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                                                                                           Length
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TITLE OF INVENTION: Immunostimulatory Nucleic Acids and
TITLE OF INVENTION: Cancer Medicament Combination Then
TITLE OF INVENTION: Cancer
FILE REFERENCE: C1037/7017(HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/800,266A
CURRENT FILING DATE: 2001-03-05
PRIOR APPLICATION NUMBER: US 60/187,214
PRIOR FILING DATE: 2000-03-03
NUMBER OF SEQ ID NOS: 146
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 77
LENGTH: 24
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                                                                                    Score 24; DB 9;
Pred. No. 0.0019;
); Mismatches 0
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Pred. No. 0.0019
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    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Synthetic Sequence
    US-09-824-468-90

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FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                 Sequence 77, Application US/09800266A
Patent No. US20020156033A1
GENERAL INFORMATION:
APPLICANT: Bratzler, Robert L.
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US-09-895-007A-77
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SOFTWARE: Fat
SEQ ID NO 77
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24;

Length

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APPLICANT: Van Nest, Gary
APPLICANT: Van Nest, Gary
APPLICANT: Tuck, Stephen
APPLICANT: Fearon, Karen L.
APPLICANT: Fearon, Karen L.
APPLICANT: Dina, Dina,
TITLE OF INVENTION: BIODEGRADABLE IMMUNOMODULATORY
TITLE OF INVENTION: FORMULATIONS AND METHODS FOR USE THEREOF
FILE REFERENCE: 377882001420
CURRENT APPLICATION NUMBER: US/09/927,422A
CURRENT FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-03-09
PRIOR FILING DATE: 2001-03-09
PRIOR FILING DATE: 2000-03-10
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 24; DB 10;
Pred. No. 0.0019;
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                                                                Sequence 23, Application US/09927422A Publication No. US20030022852A1 GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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                                   RESULT 8
US-09-927-422A-23
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LENGTH: 24
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                                                                                                                                                            US-09-920-313-77

Sequence 77, Application US/09920313

Publication No. US20020198165A1

GENERAL INFORMATION:

APPLICANT: Bratzler, Robert L.

APPLICANT: Petersen, Deanna M.

TITLE OF INVENTION: Treatment of Gastric Ulcers

FILE REFERENCE: C1037/7019 (HCL/MAT)

CURRENT APPLICATION NUMBER: US/09/920,313

CURRENT FILING DATE: 2001-08-01

PRIOR FILING DATE: 2001-08-08

NUMBER OF SEQ ID NOS: 148

NUMBER OF SEQ ID NOS: 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-920-313-147

Sequence 147, Application US/09920313

Sequence 147, Application US/09920313

Publication No. US20020198165A1

GENERAL INFORMATION:

APPLICANT: Bratzler, Robert L.

APPLICANT: Bretersen, Deanna M.

TITLE OF INVENTION: Nucleic Acids for the Prevention and TITLE OF INVENTION: Treatment of Gastric Ulcers

FILE REFERENCE: C1037/7019 (HCL/MAT)

CURRENT APPLICATION NUMBER: US/09/920,313

CURRENT FILING DATE: 2001-08-08

NUMBER OF SEQ ID NOS: 148

SOFTWARE: FastSEQ for Windows Version 3.0

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Pred. No. 0.0019;
Mismatches 0;
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Pred. No. 0.0019;
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 Score 24; DB 9;
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Best Local Similarity 100.0%;
Matches 24; Conservative 0;
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Matches 24; Conser
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US-09-920-313-77
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Best Local S
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Sequence 729, Application US/09888326
; Sequence 729, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
    APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 729
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OTHER INFORMATION: Synthetic oligonucleotide
NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: phosphorothioate backbone
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RESULT 12
US-09-888-326-732
; Sequence 732, Application US/09888326
; Sequence 732, Application US/09888326
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Best Local Similarity
Matches 24; Conser
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OTHER INFORMATION: Synthetic oligonucleotide
NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: chimeric phosphorothioate/phosphodiester backbone
OTHER INFORMATION: with phosphorothioate at 5' and 3' ends
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               WESULT 10
US-09-888-326-730

Sequence 730, Application US/09888326

Publication No. US20030026801A1

GENERAL INFORMATION:

APPLICANT: Weiner, George

TITLE OF INVENTION: Methods for Enhancing Antibody-Induced

TITLE OF INVENTION: Cell Lysis and Treating Cancer

TITLE OF INVENTION WIMBER: US/09/888,326

CURRENT APPLICATION NUMBER: US 60/213,346

PRIOR APPLICATION NUMBER: US 60/213,346

PRIOR FILING DATE: 2000-06-22

NUMBER OF SEQ ID NOS: 848

SOFTWARE: FastSEQ for Windows Version 3.0

LENGTH: 24
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; Sequence 731, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: US 60/213,346
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 731
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Pred. No. 0.0019;
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US-09-888-326-733
i Sequence 733, Application US/09888326
j Publication No. US20030026801A1
i GENERAL INFORMATION:
    APPLICANT: Weiner, George
    APPLICANT: Weiner, George
    TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
    TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
    TITLE OF INVENTION: Cell Lysis and Treating Cancer
    FILE REFERENCE: C1039/7052 (AWS)
    CURRENT FILING DATE: 2001-06-22
    PRIOR APPLICATION NUMBER: US 60/213,346
    PRIOR APPLICATION NUMBER: US 60/213,346
    NUMBER OF SEQ ID NOS: 848
    SOFTWARE: FastSEQ for Windows Version 3.0
    SEQ ID NO 733
    LENGTH: 24
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APPLICANT: Weiner, George
TITLE OF INVENTION: Methods for Enhancing Antibody-Ind:
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 848
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red. No. 0.0019;
Mismatches 0
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CTHER INFORMATION: Synthetic oligonucleotide
NAME/KEY: misc_feature
LOCATION: (0)...(0)
CTHER INFORMATION: phosphorodithioate backbone
US-09-888-326-732
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Sequence 38, Application US/09931583

Sequence 38, Application US/09931583

Sequence 38, Application NO. US20030050263A1

Sebel Cant. Krieg, Arthur

APPLICANT: Klinman, Dennis

APPLICANT: Steinberg, Alfred

TITLE OF INVENTION: Methods and Products for Treating HIV Infection

FILE REFERENCE: C1039/7053 (HCL)

CURRENT APPLICATION NUMBER: US/09/931,583

CURRENT FILING DATE: 2001-08-16

PRIOR APPLICATION NUMBER: US 09/415,142

PRIOR PILING DATE: 1999-10-09

NUMBER OF SEQ ID NOS: 75

SOFTWARE: PatentIn version 3.0

SEQ ID NO 38

LENGTH: 24
                                                                                                                                                                             APPLICANT: Krieg, Arthur
APPLICANT: Krieg, Arthur
APPLICANT: Klinman, Dennis
APPLICANT: Steinberg, Alfred
TITLE OF INVENTION: Methods and Products for Treating HIV Infection
FILE REFERENCE: C1039/7053 (HCL)
CURRENT APPLICATION NUMBER: US/09/931,583
CURRENT FILING DATE: 2001-08-16
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR FILING DATE: 1994-07-15
PRIOR FILING DATE: 1999-10-09
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin version 3.0
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Matches 24; Conservative 0; Mismatches 0;
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OTHER INFORMATION: Synthetic Oligonucleotide
-09-931-583-38
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, OTHER INFORMATION: Synthetic Oligonucleotide
US-09-931-583-29
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                                                                                                                       Sequence 29, Application US/09931583 Publication No. US20030050263A1 GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Mus muscu LD20377.5 CSU-K33r. LD01861.5 LD01231.5 RE15604.5 RE57215.5 RR420719.5 Arabidops EK001923. RE36894.5 K144b08.y Drosophil RE41506.5 GI01_E04 k128C03.y LD35063.5 Na_L3_33D EK039421.

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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi, Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1. (Dasea 1 to 936)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov/.

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov/.

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov/.

Contact: Robert Strayed by: The I.M.A.G. E. Consortium (LLNL)

DNA Sequencing by:Incyte Genomics, Inc.

Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G. E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM9273 row: k column: 11

High quality sequence stop: 608

Location/Qualifiers

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AG287122
AA540627
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BI172903
BI2484157
BI582498
AL760984
CO196204
BI243775
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Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.
Mouse whole genome scaffolding with paired end reads from 10kb plasmid inserts
                                                                                                                                                                                                           Fundulus heteroclitus
Fundulus heteroclitus
Fundulus heteroclitus
Fundulus heteroclitus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostei;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
Cyprinodontiformes; Fundulidae; Fundulus.

[ (bases 1 to 442)
Crawford, D.L., Oleksiak, M.F., Kolell, K.J., Paschall, J., VanWye, J., Roach, J.L. and Whitehead, J.A.
Fundulus Functional Genomics: EST Database for Teleost Fish
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AZ950586.1 GI:13821813
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4600 Rickenbacker Causeway, Miami, FL 33149-1098 USA Tel: 305 361 4121
Email: dcrawford@rsmas.Miami.edu
Database Web Interface
http://genomics.rsmas.miami.edu/funnybase/super_craw3/Plate: 100130 row: E_column: 2.
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/clone lib="Fundulus Heteroclitus Liver"
/note="Organ: Liver"
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/db_xref="taxon:8078"
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/ organism="Mus musculus"
/mol_type="genomic DNA"
/strain="C57BL/6J"
//db_xref="taxon:10090"
/clone="UUGC2M0214P12"
//sex="Female"
/lab_host="E. coli strain XL10-Gold, Tl-resistant, F-"
/clone=lib="Mouse 10kb plasmid UUGC2M library"
/note="VGctor: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (female) was obtained from the Jackson Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polynucleotide kinase. Adaptor oligonacleotides were
ligated to the blunt ends in high molar excess. The
adaptored DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pwD42 (gi|4732114|gb|AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptored mouse DNA was annealed to
adaptored vector DNA, and transformed into
chemically-competent E. coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."
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SP 1040_A2_CO2_T7A Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=1040 Col=4 Row=E, genomic survey sequence.

AZ199737

AZ199737.1 GI:8394637

GSS.
Strongylocentrotus purpuratus
Strongylocentrotus purpuratus
Echinoidea; Euchinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Eucchinoidea; Echinoida;
Strongylocentrotidae; Strongylocentrotus.

Echinoidea; Eucchinoidea; Echinoida;
Strongylocentrotidae; Strongylocentrotus.

AZ199737.1 GI:8394637

GSS.
Strongylocentrotus purpuratus

Echinoidea; Euchinodermata; Eleutherozoa; Echinozoa;

Echinoidea; Eucchinoidea; Echinosea; Echinosoa;

Strongylocentrotidae; Strongylocentrotus.

Strongylocentrotidae; Strongylocentrotus.

AZ199737.1 GI:8394637

GSS.
Strongylocentrotus purpuratus

Echinosoa; Echinozoa;

Strongylocentrotidae; Strongylocentrotus.

AZ199737.1 GI:8394637

GSS.

Strongylocentrotus purpuratus

Echinozoa; Echinozoa; Echinozoa;

Strongylocentrotidae; Strongylocentrotus.

AZ199737.1 GI:8394637

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Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
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                                                                                                                       Rm. 308, L.
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.0
Plate: 0214 row: P column: 12
Seq primer: CACACAGGAACAGCTATGACC
Class: plasmid ends
High quality sequence stop: 494.
Location/Qualifiers
494
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/lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/clone lib="Mouse 10kb plasmid UUGCIM library"
/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polynucleotide kinase. Adaptor oligonucleotides were
ligated to the blunt ends in high molar excess. The
adaptored DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pWD42 (gi|4732114|gb|AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptored mouse DNA was annealed to
adaptored vector DNA, and transformed into
chemically-competent E. coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                712 bp DNA linear GSS 01-OCT-2002 B.oleracea002 Brassica oleracea genomic, genomic survey
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Brassica oleracea
Brassica oleracea
Brassica oleracea
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Brassica.

1 (bases 1 to 712)
Delehaunty, K., Fewell, G., Fulton, L., McCombie, W.R., Miner, T.,
Nash, W., Rabinowicz, P.D. and Wilson, R.K.
Whole genome shotgun reads from Brassica oleracea
Unpublished (2002)
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/db_xref="taxon:3712"
/clone_lib="B.oleracea002"
/note="Vector: pOTw13; Whole genome shotgun library from flowering buds. DNA was purified from a crude nuclear prep using Brassica oleracea TO1000DH3 buds provided by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 18; DB 8; Length 627; Pred. No. 1; 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Richard K. Wilson
Contact: Richard K. Wilson
Genome Sequencing Center
Washington University School of Medicine
Email: submissions@watson.wustl.edu
Plate: odj25 row: f column: 11
Seq primer: -21UPpOT forward
Class: shotgun
High quality sequence start: 17
High quality sequence stop: 551.
Location/Qualifiers
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/organism="Brassica oleracea"
     "mol_type="genomic DNA"
'strain="C57BL/6J"
'db_xref="taxon:10090"
                                                                     clone="UUGC1M0103G09"
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S Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.

Niederhausern, A. and Wright, D., Weiss, R.

Mouse whole genome scaffolding with paired end reads from 10kb plasmid inserts

L Unpublished (2000)

Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah Genome Center
University of Utah

Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT

Fax: 801 585 5606

Fax: 801 585 7177
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1M0103G09R Mouse 10kb plasmid UUGC1M library Mus musculcione UUGC1M0103G09 R, genomic survey sequence.
AZ360406
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/mol_type="genomic DNA"
/db_xref="taxon:7668"
/clone="Plate=1040 Col=4 Row=E"
/clone_lib="Strongylocentrotus purpuratus,
urchin, sperm genomic BAC library"
/note="Organ: sperm; Vector: BACe3.6; BAC
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        Sequence scan,
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                                                   (17),
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                                                                                                             Contact: Cameron, RA, Davidson, EH, B
Division of Biology 156-29
California Institute of Technology
Pasadena California 91125, USA
Tel: (626) 395-8421
Fax: (626) 793-3047
Email: acameron@caltech.edu
Plate: 1040 row: E column: 4
Seq primer: T7
Class: BAC ends
High quality sequence stop: 613.
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Insert Length: 10000 Std Error: 0.
Plate: 0103 row: G column: 09
Seq primer: CACACAGGAAACAGCTATGACC
Class: plasmid ends
High quality sequence stop: 627.
Location/Qualifiers
                                                                                                                    Davidson, EH,
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                                                   U.S.A.
        project:
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A sea urchin genome pro
additional resources
Proc. Natl. Acad. Sci.
20402566
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3983857 5',
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                                                                                                                                                                                                                                                                           21-FEB-2001
07034 5',
Thosmas Osborn at the University of Wisconsin. Genomic DNA was provided by Pablo Rabinowicz (CSHL) and the shotgun library prepared at Washington University Genome Sequencing Center."
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                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto

Bukaryota; Metazoa; Rodentia; Sciurognathi; Muridae; Murinae;

I (bases 1 to 1536)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: The Cepko Laboratory

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM10383 row: g column: 03

High quality sequence stop: 157.

Location/Qualifiers
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BG295964 1 GI:13058125
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1811 bp mRNA linear 601754608F1 NCI_CGAP_Mam1 Mus musculus cDNA clone mRNA sequence.
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/mol_type="mRNA"
/db_xref="taxon:10090"
/clone="IMAGE:4507034"
/tissue_type="retina"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_94"
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Homo sapiens (human)
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

I (bases 1 to 2238)
S NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
L Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: CLONETECH Laboratories, Inc.
CDNA Library Preparation: CLONETECH Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM870 row: h column: 10
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Mus musculus (house mouse)

Mus musculus (house mouse)

Bukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi,

Bukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi,

Buharyota, Metazoa; Chordata, Sciurognathi; Muridae, Murinae, Mus-

I (bases 1 to 1811)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Contact: Robert Straushers, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Gilbert Smith, Ph.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LiNL at:

Liamge.llnl.gov

Plate: Liamgla row: p column: 02

High quality sequence stop: 514.

Location Qualifiers

I. 1811

/mol type="mamma" mammary: Vector: pcMV-SpORT6; Site I: Sall;

/lab_host="minger" mammary: Vector: pcMV-SpORT6; Site I: Sall;

/note="Organ: mammary: Vec
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mRNA sequence.
BF185539
BF185539.1 GI:11064003
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                                                  /lab_host="E. coli DH10B"
/lab_host="E. coli DH10B"
/clone lib="Normalized Anopheles Head (NAH) Library"
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
polylinker; Site_1: EcoR1 (5'end); Site_2: Not1 (3'end); a
directionally cloned and normalized, oligo-T primed cDNA
library constructed from strain 4arr adult mosquito heads.
Equal numbers of sugar fed males, sugar fed females and 6,
24 and 48 hr post blood meal females were used: Bonaldo,
Lennon & Soares (1996): Normalization and Subtraction: Two
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Anopheles gambiae
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
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Lobo, N.L., Gardner, M., Romans, P. and Collins, F.H.
Anopheles gambiae EST, Center for Tropical Disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Frank H. Collins
Center for Tropical Disease Research and Training
University of Notre Dame
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Pred. No. 0.98;
); Mismatches
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/mol_type="mRNA"
/db_xref="taxon:7165"
/clone="AGAE267TR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BX618180

BX618180 Normalized Anopheles Head (N CDNA clone AGAE267TR, mRNA sequence. BX618180

BX618180.1 GI:33536481
                                          /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Notre Dame, IN 46556, USA
Tel: 574-631-9245
Fax: 574-631-3996
Email: frank.h.collins.75@nd.edu.
Location/Qualifiers
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Location/Qualifiers
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Matches 18; Conservative
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Anopheles.
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1. .606
/organism="Anopheles gambiae"
/mol type="mRNA"
/db xref="taxon:7165"
/clone="AGADB48TR"
/lab_host="E. coli DH10B"
/lab_host="E. coli DH10B"
/clone lib="Normalized Anopheles Head (NAH) Library"
/clone lib="Normalized Anothe a modified polylinker; Site_1: Econ! (5'end); Site_2: Not! (3'end); a directionally cloned and normalized, oligo-T primed cDNA library constructed from strain 4arr adult mosquito heads.
Equal numbers of sugar fed males, sugar fed females and 6, 24 and 48 hr post blood meal females were used: Bonaldo, Lennon & Soares (1996): Normalization and Subtraction: Two Approaches To Facilitate Gene Discovery, Genome Research 6, 791-806. ESTS sequenced from the M13 reverse priming site reading from the 5' ends of the cDNAs are indicated by 'R' in the clone name. ESTS sequenced from the M13 forward priming site reading from the 3' ends of the cDNAs are indicated by 'R' in the clone name."
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Approaches To Facilitate Gene Discovery, Genome Research 6, 791-806. ESTs sequenced from the M13 reverse priming site reading from the 5' ends of the cDNAs are indicated by 'R' in the clone name. ESTs sequenced from the M13 forward priming site reading from the 3' ends of the cDN/are indicated by 'F' in the clone name."
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Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
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Center for Tropical Disease Researd
University of Notre Dame
Notre Dame, IN 46556, USA
Tel: 574-631-9245
Fax: 574-631-3996
Email: frank.h.collins.75@nd.edu.
Location/Qualifiers
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Lobo, N.L., Gardner, M.,
Anopheles gambiae EST,
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mRNA sequence.
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1. .642
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:3681059"
/tissue_type="carcinoma, cell line"
/lab_host="DHINB (T1 phage-resistant)"
/clone lib="NIH MGC 53"
/clone lib="NIH MGC 54"
/clone lib="NI
                                                                         15-AUG-2000
81059 5',
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20 5', mRNA
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                                                                                                                                                                                                                                                                                         Euteleostomi;
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1 (bases 1 to 705)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                               (MGC)
                                                                                                                                                                                                                                                    Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostc

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostc

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 642)

2 NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC

CDNA Library Preparation: CLONTECH Laboratories, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gc

Plate: LLCM362 row: g column: 12

High quality sequence stop: 461.
                                                                          2 bp mRNA linear EST sapiens cDNA clone IMAGE:368
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Pred. No. 4.1;
0; Mismatches
                                                                            642
                                                                       BE565899
601338744F1 NIH_MGC_53 Homo
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Gallus gallus
                                                                                                                                                                                  GI:9809619
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BES65899
BES65899.1 GI:
EST.
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Matches 17; Conser
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BU475840
BU475840.1
EST.
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                   RESULT 12
BE565899/c
LOCUS
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BU475840/c
LOCUS
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AUTHORS
TITLE
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KEYWORDS
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/dev_stage="adult"
/lab_host="DH10B"
/clone_lib="CSEQRBN22"
/clone_lib="CSEQRBN22"
/note="Vector: pBluescript II KS(+); Site_1: EcoRI;
Site_2: Not1; This normalized library was constructed from 1 million independent clones. cDNA synthesis was initiated using an oligo(dT) primer, using methylated C in the first strand synthesis reaction. Following this first strand reaction, double-stranded cDNA was blunted, ligated to NotI adapters, digested with EcoRI, size-selected, and cloned into the NotI and EcoRI compatible sites of a custom modified MCS of the pBluescript (KS+) vector. The library was normalized in 2 rounds using conditions adapted from Soares et al., PNAS (1994) 91: 9228-9232 and Bonaldo et al., Genome Research 6 (1996): 791, except that a significantly longer reannealing hybridization was
    Burt, D.W., Bosch, E., and Hubbard, S.J.
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Oryzias latipes
Oryzias latipes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
Beloniformes; Adrianichthyidae; Oryziinae; Oryzias.
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                                                                                                                                                                                                        Science and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from
Boardman, P.E., Sanz-Ezquerro, J., Overton, I.M., E Fong, W.T., Tickle, C., Brown, W.R.A., Wilson, S.A. A Comprehensive Collection of Chicken cDNAs Curr. Biol. 12 (22), 1965-1969 (2002) 12445392
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Kohara, Y., Shin-i, T., Kimura, T., Narita, T.,
Medaka EST Project in Takeda's lab
Unpublished (2001)
Contact: Tadasu Shin-i
Center For Genetic Resource Information
National Institute of Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BJ709296 MF01FFA CDNA Oryzias latipes CDNA
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                                                                                                                                                                                                        of
                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Gallus gallus"
/mol_type="mRNA"
/strain="Layer and broiler"
/db_xref="taxon:9031"
/clone="ChEST343120"
/sex="Male and female"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB Pred. No. 4; 0; Mismatches
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                                                                                                                                                                              Department of Biomolecular Sciences
University of Manchester Institute
                                                                                                                                                                                                                           OMIS.,
PO Box 88, Manc...
PO Box 88, Manc...
Tel: 016123608930
Fax: 01612360409
Email: Simon.Hubbard@umist.ac.uk.
Location/Qualifiers
705
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                                                                                                                                                       Contact: Simon Hubbard
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larity 100.0%;
Conservative
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Lukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.

1 (bases 1 to 711)

2 Whitelaw,C.A., Quackenbush,J., Van Aken,S., Utterback,T., Resnick,A., Fraser,C.M., Yuan,Y., San Miguel,P., Ma,J. and Bennetzen,J.

2 Maize Genomics Consortium

2 Unpublished (2003)

3 Contact: Cathy Whitelaw

7 TGR

9712 Medical Center Drive, Rockville, MD 20850, USA

7 Tel: 301-838-5843

7 Fax: 301-838-5843

8 Fax: 301-838-0208

8 Email: whitelaw@tigr.org

8 Gordion/Qualifiers

1 . .711

| Abared ends. | Location/Qualifiers | Location/Qualifiers |
| Abared ends. | Locat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CG083967

711 bp DNA linear GSS 20-AUG-2003 PUJAE78TB ZM_0.6_1.0_KB Zea mays genomic clone ZMMBTa0622M11, genomic survey sequence.
CG083967
CG083967.1 GI:33966261
GSS.
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1111 Yata, Mishima, Shizuoka 411-8540,
Tel: 81-559-81-6856
Fax: 81-559-81-6855
Email: tshini@genes.nig.ac.jp.
Location/Qualifiers
1. 708
/organism="Oryzias latipes"
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/sex="mixture of female and ma/sex="mixture of female and ma/dev_stage="whole embryo"
/dev_stage="fry stage 40"
/clone_lib="MF01FFA cDNA"
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            Shizuoka 411-8540,
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Pred. No. 4;
0; Mismatches
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100.0%; P
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Best Local Similarity 100.0%; P
Matches 17; Conservative 0;
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AUTHORS
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AX046171

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AX045780

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AX104070

AX104160

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AX342289
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Unclassified.

I (bases 1 to 24)

Krieg, A.M. and Weiner, G.

Krieg, A.M. and Weiner, G.

Methods and products for stimulating the immune systimunotherapeutic oligonucleotides and cytokines immunotherapeutic oligonucleotides and cytokines

Location/Qualifiers

Location/Qualifiers

24
                                                                                                                                                                                                                                                                  linear
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Pred. No. 2.
; Mismatches
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3 6239116.
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3 6218371.
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AX432469

AX045771

AX045771

AX045780

AX045781

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AX104070

AX104070

AX104220

AX104722

AX104773

AX104773

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AX105209

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Methods and products for stimulating the immune system using immunotherapeutic oligonucleotides and cytokines.
BD261142
BD261142.1 GI:33070912
JP 2002510644-A/90.
synthetic construct
synthetic construct
other sequences; artificial sequences.
I (bases 1 to 24)
Krieg, A.M. and Weiner, G.
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Method of controlling hematopoiesis by using CpG oligonucle
BD205600.1 GI:33015370

BD205600.1 GI:33015370

JP 2002514397-A/90.

Synthetic construct

Other sequences; artificial sequences.

I (bases 1 to 24)

Wagner,H. and Lipford,G.

Method of controlling hematopoiesis by using CpG oligonucle
Patent: JP 2002514397-A/90

PATENT. JP 2002514397-A/90

PD 21-MAY-2002

PF 14-MAY-1999 JP 2000547969

PR 14-MAY-1999 US 60/085516,02-FEB-1999 US 09/24165

HERMANN WAGNER,GRAYSON LIPFORD

PC C12N15/09,A61K31/70,A61K39/39,C07H21/04//A61K45/00,C12

CC Synthetic Sequence
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Immunostimulatory nucleic acid molecules
Patent: US 6239116-A 46 29-MAY-2001;
Location/Qualifiers
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Krieg, A.M. and Weiner, G.
Methods and products for
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immunotherapeutic oligonucleotides and cytokines

Patent: JP 2002510644-A 90 09-APR-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
OS Artificial Sequence
PN JP 2002510644-A/90
PD 09-APR-2002
PF 02-APR-1999 JP 2000542030
PR 03-APR-1999 US 60/080729
PR 03-APR-1999 US 60/080729
PR 03-APR-1998 US 60/080729
PR 03-AP
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39,
PC A61P31/00, A61P35/00, A61P37/00
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1 (bases 1 to 24)
Mccluskie, M.J. and Davis, H.L.
Methods and products for inducing mucosal immunity
Patent: JP 2002516294-A 77 04-JUN-2002;
LOEB HEALTH RESEARCH INSTITUTE AT THE OTTAWA HOSPITAL
PHARMACEUTICALS GROUP INC
OS Artificial Sequence
PN JP 2002516294-A/77
PD 04-JUN-2002
PF 21-MAY-1999 JP 2000550515
PR 22-MAY-1999 US 60/086393
PI MICHAEL J MCCLUSKIE, HEATHER L DAVIS
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/organism="synthetic col/mol_type="genomic DNA"
/db_xref="taxon:32630"
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Methods and products for i
BD261298
BD261298.1 GI:33071068
JP 2002516294-A/77.
synthetic construct
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                                                                                                                                                                                                                                                                                   Friede, M., Garcon, N. and Hermand, P. Vaccine

Vaccine

Datent: JP 2002542203-A 4 10-DEC-2002;

SMITHKLINE BEECHAM BIOLOGICALS SA

OS Homo sapiens (human)

PN JP 2002542203-A/4

PD 10-DEC-2002

PR 19-APR-2000 JP

PR 19-APR-2000 JP

PR 19-APR-1999 GB 9908885.8, 29-APR-1999 US 09/301829 PI

MARTIN FRIEDE, NATHALIE GARCON, PHILIPPE HERMAND PC

A61K39/39, A61K31/7088, A61K39/00, A61K39/112, A61K39/112, A61K39/00, A61K39/12, A61K
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                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 24)
Friede, M., Garcon, N. and Hermand, P.
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Methods for the prevention and treatment of parasitic infections and related diseases using CPG oligonucleotides.
BD267904
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/organism='Homo sapiens (human)'.
Location/Qualifiers
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/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
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nilarity 100.0%;
Conservative 0;
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Vaccine.
BD261563
BD261563.1 GI:330713
JP 2002542203-A/4.
Homo sapiens (human)
Homo sapiens
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BD267904
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BD261563
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Synthetic construct
synthetic construct
other sequences; artificial sequences.

E 1 (bases 1 to 24)
S Krieg, A.M.
S Krieg, A.M.
Stereoisomer of CpG oligonucleotide and method relating thereto
UNIVERSITY OF IOWA RESEARCH FOUNDATION
OS Artificial Sequence
PN JP 2002521489-A/77
PD 16-JUL-2002
PF 27-JUL-1999 JP 2000562385
PR 27-JUL-1999 US 60/094370
PI ARTHUR M KRIEG
PC A6IK31/711, A6IP11/06, A6IP17/00, A6IP27/02, A6IP29/00, A6IP31/00,
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C12N15/09,A61K37/02,A61K37/24,C12N15/00
Synthetic Sequence
Key
                                                                                DAVIS, STEPHEN
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A61P31/00,
A61P35/00,A61P37/04,A61P37/06,A61P37/08
Synthetic Location/Onalifiers
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Location/Qualifiers
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Location/Qualifiers
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|mol_type="genomic DNA"
|db_xref="taxon:32630"
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Stereoisomer of CpG oligonucleotide and
BD270804
BD270804.1 GI:33080572
JP 2002521489-A/77.
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/mol_type="genomic DNA"
/db xref="taxon:32630"
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Mismatches
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Artificial Sequence
JP 2002513763-A/77
14-MAY-2002
06-MAY-1999 JP 2000546780
06-MAY-1998 US 60/084512
ROBERT A GRAMZINSKI, ARTHUR M KI
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Pred. No.
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                                                                                                                                           Wagner, H., Kretzschmar, H. and Sethi, S.
Use of cpg nucleic acids in prion-disease
Patent: WO 2004007743-A 19 22-JAN-2004;
Coley Pharmaceutical GmbH (DE)
Location/Qualifiers
1. .24
                                                                                                                                                                                                             /organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"
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Pred. No. 2.3;
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19 from Patent WO2004007743
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Sequence 47 from Patent WO2004019979
CQ788116
CQ788116.1 GI:45723024
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GLAXO GROUP LIMITED (GB)
Location/Qualifiers
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Patent: WO 2004019979-A
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Monoclonal antibody production by ebv transformation
Patent: WO 2004076677-A 1 10-SEP-2004;
Institute for Research in Biomedicine (CH)
Location/Qualifiers
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GLAXO GROUP LIMITED (GB); GlaxoSmithKline
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Vaccine
Patent: WO 2004031222-A 27 15-APR-2004
GLAXO GROUP LIMITED (GB)
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Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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Unclassified.

Unclassified.

E 1 (bases 1 to 24)

S Krieg, A.M., Davis, H.L., Wu, T. and Schorr, J.

Vectors and methods for immunization or therapeutic protocols

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                  Unclassified.

Unclassified.

1 (bases 1 to 24)

Krieg, A.M., Davis, H.L., Wu, T. and Schorr, J.

Vectors and methods for immunization or therapeutic protocols

Patent: US 6339068-A 3 15-JAN-2002;

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; Search time 1187 Seconds (without alignments) 119.691 Million cell updates/sec 23:29:45 2005, 4. August on:

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residues seqs, 2959870667 4390206 Searched

8780412 of hits satisfying chosen parameters: number Total

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Database

Geneseq_16Dec04:*

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Result No.	Score	Query Match	Length	DB	ID	Description
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	24	100.0		~	AAV60953	Aav60953 Unmethyla
7	24	100.0	24	7	AAV47689	Aav47689 Unmethyla
ო	24	ö		7	AAV27664	Aav27664 Immunosti
4	24	0		7	AAZ41936	Aaz41936 IL-12 sec
ហ	24	0		~	AAV83715	Aav83715 Synthetic
9	24	0		~	AAV74252	Aav74252 CpG-N mot
7	24	0		ო	AA261001	Aaz61001 Nucleotid
80	24	0		m	AAZ48012	Aaz48012 Immune re
6	24	0		m	AA247876	Aaz47876 Immunosti
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ALIGNMENTS

cytosine-guanine dinucleotide containing oligonucleotide unmethylated CpG dinucleotide; immune response; natural killer response; Th1 response; Th1 cytokine; hepatitis B. ВР 98WO-US004703. 97US-0040376P. 24 entry) AAV60953 standard; DNA; (first Unmethylated WO9840100-A1 10-MAR-1998; 10-MAR-1997; 14-DEC-1998 17-SEP-1998 Synthetic. AAV60953; RESULT 1

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Krieg AM; Schorr J, Davis HL,

WPI; 1998-520792/44.

dinucleotide - encoding antigen Use of oligonucleotides containing an unmethylated CpG useful as, e.g. adjuvant with antigen, or nucleic acid for inducing immune response in subject. Use of useful

67pp; English. Disclosure; Page 12;

Oligonucleotides containing at least 1 unmethylated CpG dinucleotide affect the immune response in a subject by activating natural killer cells or redirecting a subject's immune response from a Th2 to a Th1 response by inducing monocytic and other cells to produce Th1 cytokines. These nucleic acids containing at least 1 unmethylated CpG can be used as an adjuvant, specifically to induce an immune response against an

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                                                                                                                                                                                                                                                                                                                                                                                                                                           Unmethylated CpG dinucleotide; immune response; bacterial meningitis; natural killer cell activation; NK cell; Th2 response; neonatal sepsis; pulmonary disorder; asthma; environmentally induced airway disease; bacterial infection; endotoxaemia; therapy; cystic fibrosis; inflammatory bowel disease; ss.
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                                                                                                                                                                                                                                                                                                AAV47689 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9837919-A1
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                                                                                                                           24;
                   disorders,
  antigenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                    AAV47689;
                                                        Sequence
                                                                                          Query Match
Best Local
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AAV47689
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Length 24;

2;

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24; No.

Score Pred.

100.0%; 100.0%;

Similarity

Query Match Best Local 3

2.4;

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AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides (ODNs) of the invention. The ODNs contain at least one unmethylated CpG dinucleotide, and have the formula: 5' NIXICGX2N2 3', where at least one nucleotide separates consecutive CpGs, X1 is adenine, guanine, or thymine, X2 is cytosine or thymine, N is any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer OR 5' NXIX2CGX3X4N 3', where at least one nucleotide separates consecutive CpGs, X1 and X2 are selected from GpT, GpG, GpA, ApT and ApA, X3 and X4 are selected from TpT or CpT, N is any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer. The ODNs activate lymphocytes in a subject and redirect a subject's immune response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other cells to produce Th1 cytokines, including IL-12, IFN-gamma and GM-CSF). The ODNs can be used to treat or prevent an asthmatic disorder, autoimmune diseases, in desensitisation therapy, as an artificial dignumber of the contain a mammal such as a mouse or a mouse or a mammal such as a mouse or a mouse or a mammal such as a mouse or a mouse or a mammal such as a mouse or a mou
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unmethylated CpG dinucleotide; activate; lymphocyte; immune response;
Th2; Th1; cytokine; treatment; prevention; asthma; autoimmune disease;
desensitisation therapy; artificial adjuvant; antibody generation; ss.
 Gaps
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Pred. No. 2.4;
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                                      83; 109pp; English
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larity 100.0%;
Conservative C
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 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9818810-A1
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Matches 24
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Sequences AAZ41856-Z41949 are phosphorothioate CpG oligonucleotides which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune response in a subject comprising administering to a subject exposed to an antigen, an immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide to induce a synargistic antigen specific immune response. The methods are useful for treating cancer by stimulating an antigen specific immune response against a cancer antigen. The methods can also be used to treat neoplastic disorders in humans, including but not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma, and glioma. The methods are also useful for treating infectious diseases.

The methods and compositions may also be applied to treat cancer and tumours in non human subjects, e.g. cats and dogs. Neoplasias affecting agricultural livestock may also be treated and include leukaemia, haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious, contagious diseases of sheep and goats caused by the bacterium contrating B cells, NK cells, and antigen presenting cells, such as monocytes and macrophages. CpG oligonucleotides enhance antibody contagions with trumour antion and can be used as an adjurant in
                                                                                                                                                                        ; secretion; asthma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        challenge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel synergistic combinations of immunostimulatory oligonucleotides immunopotentiating cytokines are useful for stimulating the immune
                                                                                                                                                                         CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; human PBMC; immune response; cancer; HIV; bacterial disease; as neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine; antigen presenting cell; infection; allergic disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       conjunction with tumour antigens to protect against a tumour
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                                                                                                                                      IL-12 secretion inducing CpG oligonucleotide 81
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                               AAZ41936 standard; DNA; 24
                                                                                                     (first entry)
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                                                                  AAZ41936;
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the
                                                                                                                                    CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation; viral antigen; bacterial antigen; parasite; therapeutic; growth factor; toxins; tumour suppressor; cytokine; apoptotic protein; interferon; hormone; clotting factor; ligand; receptor; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence is used in the description of a method for enhancing the immunostimulatory effect of an antigen encoded by nucleic acid contained in a nucleic acid construct. The method involves determining the CpG-N and CpG-S motifs present in the construct, removing neutralising CpG (C-N) motifs and optionally inserting stimulatory CpG (CpG-S) motifs in the construct, thereby producing a nucleic acid construct having enhanced immunostimulatory efficacy. The method can be used for immunisation against viral antigens, e.g. from hepatitis B virus (HBV), bacterial antigens or an antigen derived from a parasite. They can also be used fexpression of a therapeutic polypeptide, e.g. growth factors, toxins, tumour suppressors, cytokines, apoptotic proteins, interferons, hormone clotting factors, ligands and receptors. (Updated on 20-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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an antigen or enhancing
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WA RES FOUND.
                                                                                                               Synthetic oligonucleotide with CpG-N motif
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97US-0047233P
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             AAV83715 standard; DNA;
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UNIV IOWA RE
QIAGEN GMBH.
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                                                                     20-MAR-2003
15-MAR-1999
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20-MAY-1997
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Matches 24
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h factor;
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ibitory;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV74237-V74253 are oligodeoxynucleotide (ODN) primers used to describe method for enhancing the immunostimulatory effect of an antigen encoded by nucleic acid contained in a nucleic acid construct. The method involves determining the CpG-N and CpG-S motifs present in the construct removing neutralising CpG (CpG-N) motifs and optionally inserting stimulatory CpG (CpG-S) motifs in the construct, thereby producing a nucleic acid construct having enhanced immunostimulatory efficacy. The method can be used for immunisation against viral antigens, e.g. from hepatitis B virus (HBV), bacterial antigens or an antigen derived from parasite. They can also be used for expression of a therapeutic polypeptide, e.g. growth factors, toxins, tumour suppressors, cytokines apoptotic proteins, interferons, hormones, clotting factors, ligands an receptors. (Updated on 20-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sease;
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                                                               CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation viral antigen; bacterial antigen; parasite; therapeutic; growth factoxin; tumour suppressor; cytokine; apoptotic protein; interferon; hormone; clotting factor; ligand; receptor; oligodeoxynucleotide;
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                                                                                                                                                                                                                                                                                                                                                                                       vectors
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunostimulatory; stereoisomer; CpG oligonucleotide; Th2; Th1, allergen; cancer; immunoinh; inflammatory disease; inflammatory bowel disease; autoimmune di
                                                                                                                                                                                                                                                                                                                                                                                                 an antigen or enhanc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24;
                                                                                                                                                                                                                                                                                                                                                                                   J CpG motifs in DNA of an antigen or er
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100.0%; Pred. No. 2.4;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                             expression of a therapeutic polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                   lising CpG and stimulating immunostimulatory effect of
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                                                                                                                                                                                                                                                                              HOSPITAL
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Conservative
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UNIV IOWA RES FOUND
              entry)
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                                                                                                                                                                                                                                                                                                                                                                                   neutralising CpG
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(revised)
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            (first
                                        SOS-ODN
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24; Conser
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                                                                                                                                                           WO9852581-A1
0-MAR-2003
5-MAR-1999
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Matches
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AAZ60933-Z61015 represent immunostimulatory stereoisomers of CpG
oligonucleotides. The sequences are derived from generic nucleic acid
sequence, from which immunoinhibitory sequences may also be derived. The
immunostimulatory nucleic acids can be co-administered with an antigen to
induce an antigen-specific immune response. The immunostimulatory nucleic
acids can also be used in methods for redirecting a subject's immune
c acids can also be used in methods for redirecting a subject immune
c acids can also be used in methods for redirecting a subject immune
c acids can also be used in methods for redirecting a subject immune
c subject against the occurrence of an allergic reaction in response to
contact with an allergen, for activating an immune cell, especially a
lymphocyte or a dendritic cell expressing a cancer antigen or for
treating cancer. The immunoinhibitory nucleic acid can be used to prevent
an immune response, especially where the immune response in the subject
is excessive due to having received an immune stimulating compound. The
immunoinhibitory nucleic acid can be used to treat a subject having or at
risk of an inflammatory disease, especially inflammatory bowel disease,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG
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(CPGI-) CPG IMMUNOPHARMACEUTICALS INC
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100.0%;
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Best Local Similarity
Matches 24; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunostimulatory
oligonucleotides u
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                                                      WO200006588-A1
                                                                                                                                                          27-JUL-1999;
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Synthetic.
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99WO-US011359

21-MAY-1999;

02-DEC-1999

WO9961056-A2.

98US-0086393P

22-MAY-1998;

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                                                                                                                                                                                                                        The present invention describes a method using CpG containing oligonucleotides (ONB) for regulating immune system remodeling and for regulating haematopoiesis. The method for inducing an antigen-specific immune response comprises: (1) administering an ON having a sequence including at least the formula (1); and (2) exposing the subject to an antigen at least 3 days after the ON is administered to the subject to an antigen sub-specific immune response: 5 'XICGX2 3' (1), where the CN = includes at least 8 nucleotides; C and G = unmethylated, and X1 and X2 = nucleotides. The method can be used for inducing an immune response against an antigen such as cells, cell extracts, proteins, carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and alergens. It can be used in subject at risk of developing cancer or an alerger reaction. It can also be used for treating an infectious disease, allergic reaction. It can also be used for treating an infectious is drug-induced, due to an autoimmune disorder such as idiopathic tradiation exposure. It can also be used for treating ansemia such as drug-induced anaemia, immunohaemolytic disease such as kidney failure, and choncic inflammatory disorder such as kidney failure, and controi inflammatory disorder such as kidney failure, and resulting from accidental or therapeutic radiation exposure. AAX47932 to AAX48029 represent phosphorothioate CpG oligonucleotides used in the exemplification of the present invention
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                                                                                                                                                                   antigen
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Mismatches
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                                                                                                                                                                   CpG containing oligonucleotides for,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 24;
                                                                                  GMBH.
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99US-00241653
                       99WO-IB001285
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                                                                                                                                                                                                       66; 116pp;
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                                                                                                                                                                               specific immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 BP;
                                                                                                                                                                                                       Example 1; Page
                                             14-MAY-1998;
02-FEB-1999;
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18-NOV-1999.
                                                                                 (CPGI-) CPG
(CPGI-) CPG
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Best Local
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The present invention describes a method using CpG containing oligonucleotides (ONs) as adjuvants for inducing an immune response (MIR) comprises: (1) administering to a mucosal immune response (MIR) comprises: (1) administering to a mucosal surface of a subject an ON, having a sequence including at least the formula (I); and (2) exposing the subject to an antigen to induce the MIR, where the antigen is not encoded in a nucleic acid vector: 5'XIXZCGX3X43' (I), where C and (2 = unmethylated, and X1, X2, X3 and X4 = nucleotides. The method can be used for treating a subject at risk of developing an allergic reaction, cancer or infectious cubject at risk of developing an allergic reaction, cancer or infectious disease. It can be used for treating asthmatic subjects, eczema, allergic rhinitis or coryza, hay fever, conjunctivitis, bronchial asthma, urticaria, food allergies or other atopic conditions. The antigen may be derived from infectious organisms such as infectious bacteria, viruses, parasites or fungi. It can be used in humans or animals, e.g. bovine, parasites or fungi. It can be used in humans or animals, e.g. bovine, conince, felline, swine, aquatic or avian species. The ONs act as potent mucosal adjuvants to induce immune responses at both local and remote sites against an antigen administered to the mucosal tissue Both systemic and mucosal immunity are induced by mucosal delivery of the ONS. Allored Allored and in the examples of immunostimulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CpG; immunostimulatory; adjuvant; vaccine; metal salt; antiviral; antibacterial; antiprotozoal; antimalarial; anti-allergic; anticancer; immune response; infection; allergy; cancer; ss.
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HEALTH RES INST AT OTTAWA HOSPITAL. IMMUNOPHARMACEUTICALS INC.
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                                                                                                                                                                    oligonucleotides as
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                                                                                                                                                                                                                                           Disclosure; Page 25; 116pp; English.
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                                                                        Davis HL;
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                                                                                                                                                                       containing
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                                                                                                                       WPI; 2000-062585/05
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                                                                         Mccluskie MJ,
 CPG 1
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Best Local S
Matches 24
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                                                                                                                                                                                                response
 (LOEB-)
(CPGI-)
                                                                                                                                                                       of
                                                                                                                                                                         Use
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                                                                                                                                                                                                                                                         The present invention describes an adjuvant composition (A) comprising an immunostimulant (I) absorbed on a metallic salt particle (II) that is practically free of antigen (Ag). Also described are: (1) preparation of a vaccine by mixing (A) with Ag; (2) vaccine comprising two major populations of comprising, in separate containers, monophosphoryl lipid A (MPL) adsorbed on metal salt and Ag adsorbed on metal salt. (A) has antiviral, antibacterial, antiprotozoal, antimalarial, anti-allergic and anticancer activities, and can be used to induce a specific immune response. (A) are used in preparation of vaccines for treatment or prevention of a wide range of viral, bacterial and protozoal infections, also allergy and cancers. By adsorbing (I) and Ag on separate particles (vaccines (including those containing many Ag) can be produced simply by mixing, rather than by sequential adsorption of many components on to the same particles (which is time-consuming, expensive and difficult to control). The component may be tested individually and failure of any one component does not require rejection of an entire batch of vaccine. The new vaccines are as effective as those prepared conventionally. The present sequence represents a CpG immunostimulatory oligonucleotide which is the used in the exemplification of the present invention
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tigen,
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cell;
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CpG oligonucleotide; antigen presenting cell; natural killer ce
granulocyte; malaria; helminth disease; tick; mite; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Parasitic infection preventing exemplary oligonucleotide SEQ
                                                                                                                                                                    Adjuvant composition comprising immunostimulant, useful for vaccines, deposited on metal salt particle that contains no which is present on separate particles.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3; Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                            SMITHKLINE BEECHAM BIOLOGICALS
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                                                                                                                                                                                                                                 English
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             98GB-00022703.
98GB-00022709.
98GB-00022712.
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                                                                                                                                                                                                                                 37pp;
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                                                                                                                                        WPI; 2000-339525/29
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             16-OCT-1998;
16-OCT-1998;
16-OCT-1998;
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                                                                                                                                                                                                                                 Disclosure;
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AAZ47671
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mites in
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                                                                                                                                                                                parasitic infection by administration of unmethylated CpG
oligonucleotides. The CpG oligonucleotides are able to stimulate the
innate immune system via the activation of immune cells, such as antigen
presenting cells, natural killer cells and granulocytes. The CpG
oligonucleotides and the method can be used to treat and prevent
parasitic diseases, such as malaria, helminth diseases, tick and mites in
humans, animals and poultry. The oligonucleotides may be administered in
conjunction with parasiticides or other therapeutic compounds after an
organism has been diagnosed to be infected with parasites. Diseases which
can be treated or prevented include those caused by Plasmodium
falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia
microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense,
Schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania
                                                                                                                oligonucleotides
                                                                                                                                                                                                                                                                                                                                 P. ovale, ...
divergens, Trypanosoma cruze, ...
mansoni, Toxoplasma gondii, Trichinella spirale, ...
onovani, L. braziliensis, and L. tropica. The parasite is onovani, L. braziliensis, and L. tropica. The present sequence represents capable of causing malaria. The present sequence from
                                                                                                                                                                                                                                                                                                                                                                                  especially capable of causing malaria. Ine present capable of causing exemplary oligonucleotide sequence from parasitic infection preventing exemplary oligonucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                        preventing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acid stimulating NK cell lytic activity
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unmethylated
                                                                                                                Treating and preventing parasitic infections using
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 24 BP; 0 A; 4 C; 6 G; 14 T; 0 U; 0 Other;
                                                         Hoffman SL;
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No.
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Pred.
                                                         Davis HL,
                                                                                                                                           74pp; English.
                INST
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               LOEB RES
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larity 100.0%;
Conservative C
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UNIV IOWA RES FOUND OTTAWA CIVIC LOEB RIUS SEC OF NAVY.
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BIOCACHE PHARM LLC
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                                                         Krieg AM,
                                                                                                                                                                      invention
                                                                                                                                            Page 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            response;
                                                                                                                                                                                                                                                                                                                                                                         donovani,
                                                                                    WPI; 2000-062123/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                core antigen;
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                                                                                                                                          Disclosure;
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                                                         Gramzinski
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Best Local
Matches 2
(IOWA )
(OTTA-)
(USNA )
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(BIOC-)
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   which
                                                                       which
                                                                  The present sequence represents an immune stimulatory nucleic acid, which is included in the particles of the invention. The structure of these particles is based in part on duck hepatitis B viral core antigen (HBcAg). The particles are used for hapten presentation so as to elicit an immune response. The particles are formed by assembling recombinant forms of duck HBcAg, and are highly immunmogenic. Native duck HBcAg particles are 32-34 nm particles composed of 240 identical subunit monomers, and are very similar to human HBcAg. However, duck HBcAg is not cross-reactive with human HBcAg. Recombinant forms of duck hepatitis B virus elicit a TH1 (T helper cell) immune response. The duck HBcAg particles are used to elicit an immune response in a patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   as to elicit recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         c acid, wh
of these
                                                                                                                                                                                                                                                                                                                                   Gaps
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   virus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immune stimulatory nucleic acid stimulating cytokine production.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A composition useful for inducing an immune response comprises nucleocapsid protein monomers, derived from duck hepatitis B vare assembled to form a particle.
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protein monomers, derived from duck hepatitis ito form a particle.
                                                                                                                                                                                                                                                                                                     24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               core antigen; HBcAg; hapten presentation; immune nmune response; gene therapy; ss.
                                                                                                                                                                                                                                                                                                       Length
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Pred. No. 2.4;
); Mismatches
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                                          English.
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larity 100.0%;
Conservative 0;
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BIOCACHE PHARM LLC
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                                           67pp;
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                                                                                                                                                                                                                                                                                                                    Similarity
                                          7; Page 23;
                                                                                                                                                                                                                                                                         24 BP;
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                assembled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified.
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  nucleocapsid
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                                           Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents an immune stimulatory nucleic acid, whis included in the particles of the invention. The structure of these particles is based in part on duck hepatitis B viral core antigen (HBCAg). The particles are used for hapten presentation so as to elicit an immune response. The particles are formed by assembling recombinant forms of duck HBCAg, and are highly immunmogenic. Native duck HBCAg particles are 32-34 nm particles composed of 240 identical subunit monomers, and are very similar to human HBCAg. However, duck HBCAg is recoss-reactive with human HBCAg. Recombinant forms of duck hepatitis B virus elicit a THI (T helper cell) immune response. The duck HBCAg particles are used to elicit an immune response in a patient.
monomers, and are very similar to human HBcAg. However, duck HBcAg is cross-reactive with human HBcAg. Recombinant forms of duck hepatitis E virus elicit a TH1 (T helper cell) immune response. The duck HBcAg particles are used to elicit an immune response in a patient. Polynucleotides encoding the particles may be used in gene therapy protocols
                                                                                                                                                Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A composition useful for inducing an immune response comprises nucleocapsid protein monomers, derived from duck hepatitis B virus, are assembled to form a particle.
                                                                                                                                                                                                                                                                                                                                      stimulating B cell proliferation
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The present invention relates to an adjuvant composition comprising a saponin and an immunostimulatory oligonucleotide. A vaccine composition containing the adjuvant is useful for inducing an immune response in an individual and for preventing or treating disease. Diseases include cancers, allergy, Alzheimer's disease and atherosclerosis. The vaccine is also useful for prophylaxis and treatment of viral, bacterial and parasitic infections. The present sequence is an oligonucleotide of the invention
                                                                                                                                                                                                  s disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s for
disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Adjuvant composition comprising saponin and immunostimulatory oligonucleotide CpG, useful for producing vaccine formulations prophylaxis and treatment of cancers, allergy and Alzheimer's o
                                                                                                                                                                                               Immunostimulatory; oligonucleotide; cancer; allergy; Alzheimer atherosclerosis; viral; bacterial; parasitic; infection; ss.
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29-APR-1999;
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Issued Database

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SUMMARIES

Description	Sequence 6, Appli	06	46,	3, App	66, Ap	77, Ap	84,	95, Ap	4, App	46, Ap	3, App	66, Ap	15, Ap	15, Ap	123, A	1, App	39, Ap	17269,	equence 14927,	13872,	12178,	9585,	24867,	1180	equence 16, Ap	16, App	16, Ap
ID	S-0	-286-098-9	-960-774-4	US-09-082-649B-3	-082-649B-	US-09-325-193A-77	US-09-191-170-84	US-09-191-170-95	US-09-690-921-4	US-09-337-619-46	-965-10	9		US-09-965-101-15	US-09-337-619-123	US-08-682-193A-1	-09-533-029-3	-949-016-1	-09-949-016-149	-949-016-1387	US-09-949-016-12178	US-09-270-767-9585	-270-767-248	US-09-252-991A-11803	-980-80-	US-08-468-570-16	US-08-290-665A-16
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US-08-466-601A-16 PCT-US95-10398-16 US-08-858-207A-162	-09-252-991A-11 -09-270-767-123 -09-489-039A-68	US-09-252-991A-11864 US-09-252-991A-11519 US-09-874-926-3	US-09-949-016-14993 US-09-949-016-72711 US-09-107-532A-1672 US-09-134-000C-3160	US-09-270-767-5784 US-09-270-767-21066 US-09-270-767-7079 US-09-270-767-22361	-09-949-016-131
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ALIGNMENTS

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Sequence 6, Application US/09030701B
; Sequence 6, Application US/09030701B
; Patent No. 6214806
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Schwartz, David A.
; TITLE OF INVENTION: USE OF NUCLEIC ACIDS CONTAINING
; TITLE OF INVENTION: UNBETHYLATED CpG DINUCLEOTIDE IN THE TREATMENT OF
; TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS
; FILE REFERENCE: C1039/7011
; CURRENT APPLICATION NUMBER: US/09/030,701B
; CURRENT FILING DATE: 1998-02-25
; PRIOR FILING DATE: 1997-02-28
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: FastSEQ for Windows Version 3.0
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Pred. No. 0.2
; Mismatches
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LENGTH: 24
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SULT 2 -09-286-098-90 RESULT US-09-2

Sequence 90, Application US/09286098
Sequence 90, Application US/09286098
Patent No. 6218371
GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105

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Sequence 3, Applicat
Patent No. 6339068
GENERAL INFORMATION:
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Patent No. 6239116

GENERAL INFORMATION:
APPLICANT: Krieg et al.,
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 4225 Executive Square, Suite 1400
CITY: La Jolla
                                                                                                                                  Length 24;
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 6239116

The nate: October 30, 1996
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FILING DATE: OCCUL
CLASSIFICATION:
S14
ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 08918/012001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
""". EFAX: 619/678-5099
""". SEQ ID NO: 46:
                                                                                                                                                             Mismatches
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Pred. No.
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/960,774
FILING DATE: 30-October-1997
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                                                                                    OTHER INFORMATION: Synthetic Sequence -09-286-098-90
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                         LENGTH: 24
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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LENGTH: 24 base pairs
TYPE: nucleic acid
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SOFTWARE: FastSEQ
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; TOPOLOGY: lir
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COUNTRY: US
COUNTRY: US
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INFORMATION FOR
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Therapeutic Protocols
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                                                                                                                                                                                                                                                                                                                                                                                                                              ) NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: Has a phosphorothioate backbone
US-09-082-649B-3
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red. No. 0.29;
Mismatches 0
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Pred. No. 0.29;
); Mismatches
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OTHER INFORMATION: synthetic oligonucleotide
                                            APPLICANT: Davis, Heather L.
APPLICANT: Krieg, Arthur M.
APPLICANT: Schorr, Joachim
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for
TITLE OF INVENTION: Therapeutic Protocols
FILE REFERENCE: C1039/7009
CURRENT APPLICATION NUMBER: US/09/082,649B
CURRENT FILING DATE: 1998-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 85
SOFTWARE: FastSEQ for Windows Version 3.0
LENGTH: 24
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; Sequence 66, Application US/09082649B
; GENERAL INFORMATION:
; APPLICANT: Davis, Heather L.
APPLICANT: Krieg, Arthur M.
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for
; TITLE OF INVENTION: Therapeutic Protocols
; TITLE OF INVENTION: 1998-05-20
CURRENT APPLICATION NUMBER: US 60/047,233
; PRIOR FILING DATE: 1997-05-20
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 66
LENGTH: 24
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LOCATION: (0)...(0)
OTHER INFORMATION: Bacl
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Patent No. 6429199
GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
TITLE OF INVENTION: for Activating Dendritic Cells
FILE REFERENCE: C1039/7017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 24;
                                                                                                                                                                                              APPLICANT: Davis, Heather L.
APPLICANT: Schorr, Joachim
APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Use of Nucleic Acids Containing
TITLE OF INVENTION: Unmethylated CpG Dinucleotide as
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iive 0; Mismatches
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                                                                                                                                                                                                                                                                                                FILE REFERENCE: C1039/7025/HCL
CURRENT APPLICATION NUMBER: US/09/325,193A
CURRENT FILING DATE: 1999-06-03
PRIOR APPLICATION NUMBER: US 09/154,614
PRIOR FILING DATE: 1998-09-16
PRIOR FILING DATE: 1998-03-10
PRIOR FILING DATE: 1998-03-10
PRIOR FILING DATE: 1997-03-10
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CURRENT FILING DATE: 1998-11-13
EARLIER APPLICATION NUMBER: US 08/960,774
EARLIER APPLICATION NUMBER: US 08/738,652
EARLIER FILING DATE: 1996-10-30
EARLIER FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/386,063
EARLIER FILING DATE: 1995-02-07
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
NUMBER OF SEQ ID NOS: 99
SOFTWARE: Fast SEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 98
SOFTWARE: FastSEQ for Windows Version
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24; Conserv
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US-09-325-193A-77
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US-09-191-170-95
i Sequence 95, Application US/09191170
j Patent No. 6429199
i GENERAL INFORMATION:
j APPLICANT: Krieg, Arthur M.
j APPLICANT: Hartmann, Gunther
j TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
j TITLE OF INVENTION: for Activating Dendritic Cells
fILE REPERENCE: C1039/7017
i CURRENT APPLICATION NUMBER: US/09/191,170
cURRENT APPLICATION NUMBER: US 08/960,774
EARLIER APPLICATION NUMBER: US 08/386,063
j EARLIER PILING DATE: 1996-10-30
j EARLIER PILING DATE: 1996-10-30
j EARLIER PILING DATE: 1996-10-30
j EARLIER PILING DATE: 1996-00-07
j EARLIER PILING DATE: 1996-01-03
j EARLIER FILING DATE: 1996-02-07
j EARLIER PILING DATE: 1994-07-15
j NUMBER OF SEQ ID NOS: 99
j NUMBER OF SEQ ID NOS: 99
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Score 24; DB 3
Pred. No. 0.29;
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic oligonucleotide
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Patent No. 6544518
GENERAL INFORMATION:
APPLICANT: Friede, Martin
APPLICANT: Gerard, Catherine
APPLICANT: Hermand, Philippe
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OTHER INFORMATION: m5c
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OTHER INFORMATION: m5c
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OTHER INFORMATION: m5c
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US-09-690-921-4
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Sequence 66, Application US/09965101

Patent No. 6821957

GENERAL INFORMATION:

APPLICANT: Exieg, Arthur M.

APPLICANT: Schorr, Joachim

APPLICANT: Schorr, Joachim

APPLICANT: Wu, Tong

TITLE OF INVENTION: Therapeutic Protocols

TITLE OF INVENTION: Therapeutic Protocols

TITLE OF INVENTION: Therapeutic Protocols

FILE REFERENCE: C1039/7057 (HCL/MAT)

CURRENT APPLICATION NUMBER: US 09/082,649

PRIOR APPLICATION NUMBER: US 60/047,233

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

NUMBER OF SEQ ID NOS: 84

SOFTWARE: FASTSEQ for Windows Version 3.0
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Pred. No. 0.29;
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for Imr
TITLE OF INVENTION: Therapeutic Protocols
FILE REFERENCE: C1039/7057 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/965,101
CURRENT FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: US 60/047,233
PRIOR FILING DATE: 1998-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 84
SOFTWARE: FastSEQ for Windows Version 3.0
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INFORMATION: Backbone
INFORMATION: chimera.
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FNGTH: 24
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US-09-965-
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Sequence 46, Application US/09337619

Patent No. 6653292

GENERAL INFORMATION:

APPLICANT: Krieg, Arthur M.

TITLE OF INVENTION: Methods of Treating Cancer Using

TITLE OF INVENTION: Immunostimulatory Oligonucleotides

FILE REFERENCE: C1039/7021/HCL

CURRENT APPLICATION NUMBER: US/09/337,619

CURRENT FILING DATE: 1999-06-21

EARLIER APPLICATION NUMBER: US 08/960,774

EARLIER APPLICATION NUMBER: US 08/738,652

EARLIER FILING DATE: 1996-10-30

EARLIER FILING DATE: 1996-10-30

EARLIER FILING DATE: 1996-07-15

MUMBER OF SEQ ID NOS: 123

NUMBER OF SEQ ID NOS: 123

SOFTWARE: FastSEQ for Windows Version 3.0
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Pred. No. 0.29;
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                                 CURRENT APPLICATION NUMBER: US/09/690,921
CURRENT FILING DATE: 2000-10-18
PRIOR APPLICATION NUMBER: PCT/EP00/02920
PRIOR FILING DATE: 2000-04-04
PRIOR APPLICATION NUMBER: 09/301,829
PRIOR APPLICATION NUMBER: 9908885.8
PRIOR FILING DATE: 1999-04-29
PRIOR FILING DATE: 1999-04-19
NUMBER OF SEQ ID NOS: 5
SOFTWARE: FastSEQ for Windows Version 3.0
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US-09-965-101-3
; Sequence 3, Application US/09965101
; Patent No. 6821957
; GENERAL INFORMATION:
; APPLICANT: Davis, Heather L.
; APPLICANT: Krieg, Arthur M.
¬PDI.TCANT: Schorr, Joachim
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      Vaccines
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Matches 24; Conser
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24; Conser
       INVENTION:
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                           FILE REFERENCE:
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US-09-337-619-46
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                                                                                                        Sequence 15, Application US/09082649B

Patent No. 6339068

GENERAL INFORMATION:

APPLICANT: Davis, Heather L.

APPLICANT: Schorr, Joachim

APPLICANT: Wu, Tong

TITLE OF INVENTION: Vectors and Methods for Immunization or

TITLE OF INVENTION: Therapeutic Protocols

FILE REFERENCE: C1039/7009

CURRENT APPLICATION NUMBER: US/09/082,649B

CURRENT FILING DATE: 1998-05-20

PRIOR APPLICATION NUMBER: US 60/047,233

PRIOR FILING DATE: 1997-05-20

PRIOR PILING DATE: 1997-05-20

PRIOR FILING DATE: 1997-05-20

NUMBER OF SEQ ID NOS: 85

SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Davis, Heather L.
APPLICANT: Schorr, Joachim
APPLICANT: Schorr, Joachim
APPLICANT: Schorr, Joachim
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for Immunization or
TITLE OF INVENTION: Therapeutic Protocols
FILE REFRENCA: (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/965,101
CURRENT FILING DATE: 2001-09-26
PRIOR FILING DATE: 1998-05-20
PRIOR FILING DATE: 1997-05-20
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Pred. No. 0.32;
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TCGTCGTTTTGTCGTTTTGTCGTT
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100.0%; Pr
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ORGANISM: Artificial Sequence
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Best Local Similarity 100
Matches 24; Conservative
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US-09-082-649B-15
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ENGTH: 52
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US-09-337-619-123
Mismatches
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                              Sequence 4, Application US/09760506

Publication No. US20010034330A1

GENERAL INFORMATION:

APPLICANT: Kensil, Charlotte

TITLE OF INVENTION: Innate Immunity-Stimulating Comp

TITLE OF INVENTION: Saponin and Methods Thereof

FILE REFERENCE: 8449-153-999

CURRENT APPLICATION NUMBER: US/09/760,506

CURRENT APPLICATION NUMBER: 60/200,853

PRIOR FILING DATE: 2000-01-12

PRIOR FILING DATE: 2000-01-13

PRIOR FILING DATE: 1999-04-08

PRIOR FILING DATE: 1999-04-08

PRIOR FILING DATE: 1999-04-08

PRIOR FILING DATE: 1999-04-08

PRIOR FILING DATE: 1999-08-10

NUMBER OF SEQ ID NOS: 6

SOFTWARE: PatentIn version 3.0

SEQ ID NO 4
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ORGANISM: Artificial Sequence
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OTHER INFORMATION:
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ORGANISM: Artificial Sequence
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US-09-824-468-90
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Patent No. US2002015
GENERAL INFORMATION:
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i Sequence 90, Application US/09824468

i GENERAL INFORMATION:

i APPLICANT: Weiner, George

i TITLE OF INVENTION: Methods and Products for Stimulating the

i TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and

i TITLE OF INVENTION: OFFICHER

i TITLE OF INVENTION: OFFICHER

i TITLE OF INVENTION: UNMBER: US/09/824,468

i FILE REFERENCE: COLO39/7026/HCL

i CURRENT APPLICATION NUMBER: US/09/86,098

i PRIOR FILING DATE: 1999-04-02

i SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                 Sequence 4, Application US/09768012;
Patent No. US20010044416A1;
GENERAL INFORMATION:
APPLICANT: Davis, Heather L.
TITLE OF INVENTION: Immunostimulatory Nucleic Acids for
TITLE OF INVENTION: Inducing a Th2 Immune Response;
FILE REFERENCE: C1040/7010/HCL/MAT
CURRENT APPLICATION NUMBER: US/09/768,012;
CURRENT FILING DATE: 2001-01-22;
PRIOR APPLICATION NUMBER: US 60/177,461;
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NAME/KEY: modified base
LOCATION: (2)...(2)
OTHER INFORMATION: Cytosine is unmethylated.
NAME/KEY: modified base
LOCATION: (5)...(5)
OTHER INFORMATION: Cytosine is unmethylated.
NAME/KEY: modified base
LOCATION: (13)...(13)
OTHER INFORMATION: Cytosine is unmethylated.
NAME/KEY: modified base
LOCATION: (21)...(21)
           red. No. 3.6;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 24; DB 3100.0%; Pred. No. 3.6;
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              Pred. No.
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SOFTWARE: FastSEQ for Windows Version
LENGTH: 24
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ORGANISM: Artificial Sequence
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                          Conservative
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US-09-768-012-4
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24; Conserv
            Similarity
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-09-768-012-4
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SEQ ID NO 90
LENGTH: 24
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Best Local S
Matches 24
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Sequence 77, Application US/09895007A

Sequence 77, Application US/09895007A

Patent No. US20020165178A1

GENERAL INFORMATION:

APPLICANT: Schetter, Christian

APPLICANT: Bratzler, Robert L.

APPLICANT: Bratzler, Robert L.

APPLICANT: Petersen, Deanna M.

TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACIDS FOR THE

TITLE OF INVENTION: TREATMENT OF ANEMIA, THROMBOCYTOPENIA,

FILE REFERENCE: C1041/7014 (AMS)

CURRENT APPLICATION NUMBER: US/09/895,007A

CURRENT FILING DATE: 2000-06-28

PRIOR FILING DATE: 2000-06-28

NUMBER OF SEQ ID NOS: 133

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 77

LENGTH: 24
                                                                                                                                                                                                                                                                                                                                                            of
                                                                                                                                                                                                                                                                                                 APPLICANT: Bratzler, Robert L.
APPLICANT: Bratzler, Robert L.
APPLICANT: Petersen, Deanna M.
TITLE OF INVENTION: Immunostimulatory Nucleic Acids and
TITLE OF INVENTION: Cancer
TITLE OF INVENTION: Cancer
FILE REFERENCE: C1037/7017(HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/800,266A
CURRENT FILING DATE: 2001-03-05
PRIOR APPLICATION NUMBER: US 60/187,214
PRIOR FILING DATE: 2000-03-03
NUMBER OF SEQ ID NOS: 146
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                                                   core 24; DB 9 red. No. 3.6; Mismatches
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Pred. No. 3.6
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Pred. No.
Sequence
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. US20020156033A1
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ORGANISM: Artificial
FEATURE:
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24;

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Score 24;
Pred. No.
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                                                                                               APPLICANT: Van Nest, Gary
APPLICANT: Tuck, Stephen
APPLICANT: Fearon, Karen L.
APPLICANT: Fearon, Karen L.
APPLICANT: Dina, Dino
TITLE OF INVENTION: BIODEGRADABLE IMMUNO!
TITLE OF INVENTION: FORMULATIONS AND ME'
FILE REFERENCE: 377882001420
CURRENT APPLICATION NUMBER: US/09/927,423
CURRENT FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-03-09
PRIOR FILING DATE: 2000-03-10
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                        Sequence 23, Application US/09927422A Publication No. US20030022852A1 GENERAL INFORMATION:
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                              RESULT 8
US-09-927-422A-23
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Sequence 147, Application US/09920313

Publication No. US20020198165A1

GENERAL INFORMATION:

APPLICANT: Bratzler, Robert L.

APPLICANT: Petersen, Deanna M.

TITLE OF INVENTION: Treatment of Gastric Ulcers

FILE REFERENCE: C1037/7019 (HCL/MAT)

CURRENT APPLICATION NUMBER: US/09/920,313

CURRENT FILING DATE: 2001-08-01

PRIOR FILING DATE: 2001-08-08

NUMBER OF SEQ ID NOS: 148

SOFTWARE: FastSEQ for Windows Version 3.0

LENGTH: 24

TYPE: DNA
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APPLICANT: Petersen, Deanna M.
TITLE OF INVENTION: Nucleic Acids for the Prevention and
TITLE OF INVENTION: Treatment of Gastric Ulcers
FILE REFERENCE: C1037/7019 (HCL/MAT)
CURRENT APPLICATION NUMBER: US/09/920,313
CURRENT FILING DATE: 2001-08-01
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             red. No. 3.6;
Mismatches
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 Score 24;
Pred. No.
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                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 60/222,248
PRIOR FILING DATE: 2001-08-08
NUMBER OF SEQ ID NOS: 148
SOFTWARE: FastSEQ for Windows Version 3
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Publication No. US20020198165A1
GENERAL INFORMATION:
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ENGTH: 24
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APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR PPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 848
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 729
LENGTH: 24
TYPE
IMMUNOMODULATORY
AND METHODS FOR USE THEREOF
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                                                                                                                                                                                                                                                                                                                                           red. No. 3.6;
Mismatches
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic oligonucleotide
NAME/KEY: misc_feature
LOCATION: (0)...(0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; LOCATION: (0).T.(0); OTHER INFORMATION: phosphorothioate backbone US-09-888-326-729
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Pred. No.
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us-09

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Similarity
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US-09-888-326-733
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TYPE: DI
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US-09-888-
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NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: chimeric phosphorothioate/phosphodiester backbone
OTHER INFORMATION: with phosphorothioate at 5' and 3' ends
US-09-888-326-730
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                                                                                        APPLICANT: Hartmann, Gunther

TITLE OF INVENTION: Methods for Enhancing Antibody-Induced

TITLE OF INVENTION: Cell Lysis and Treating Cancer

FILE REFERENCE: C1039/7052 (AwS)

CURRENT APPLICATION NUMBER: US/09/888,326

CURRENT FILING DATE: 2001-06-22

PRIOR APPLICATION NUMBER: US 60/213,346

PRIOR FILING DATE: 2000-06-22

NUMBER OF SEQ ID NOS: 848

SOFTWARE: FastSEQ for Windows Version 3.0

LENGTH: 24
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; Sequence 731, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: US 60/213,346
; RIUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
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Conservative 0; Mismatches
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// LOCATION: (0)...(0)
// OTHER INFORMATION: phosphodiester backbone
US-09-888-326-731
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                              Sequence 730, Application US/0988326
Publication No. US20030026801A1
GENERAL INFORMATION:
APPLICANT: Weiner, George
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ORGANISM: Artificial Sequence
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                               APPLICANT: Weiner, George
APPLICANT: Hartmann, Gunther
TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AwS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 848
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 732
LENGTH: 24
TYPE: ...
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TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
TITLE OF INVENTION: Cell Lysis and Treating Cancer
FILE REFERENCE: C1039/7052 (AWS)
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Mismatches 0
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NAME/KEY: misc_feature;
LOCATION: (0)...(0)
CTHER INFORMATION: phosphorodithioate backbone
US-09-888-326-732
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CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 848
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 733
LENGTH: 24
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Sequence 732, Application US/09888326 Sequence 732, Application US/09888326 Publication No. US20030026801A1 GENERAL INFORMATION:
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Publication No. US20030026801A1
GENERAL INFORMATION:
APPLICANT: Weiner, George
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APPLICANT: Krieg, Arthur
APPLICANT: Steinberg, Alfred
APPLICANT: Steinberg, Alfred
TITLE OF INVENTION: Methods and Products for Treating HIV Infection
FILE REFERENCE: C1039/7053 (HCL)
CURRENT APPLICATION NUMBER: US/09/931,583
CURRENT PILING DATE: 2001-08-16
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR FILING DATE: 1994-07-15
PRIOR APPLICATION NUMBER: US 09/415,142
PRIOR FILING DATE: 1999-10-09
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin version 3.0
SEQ ID NO 29
LENGTH: 24
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APPLICANT: Krieg, Arthur
APPLICANT: Klinman, Dennis
APPLICANT: Steinberg, Alfred
TITLE OF INVENTION: Methods and Products for Treating HIV Infection
FILE REFERENCE: C1039/7053 (HCL)
CURRENT APPLICATION NUMBER: US/09/931,583
CURRENT FILING DATE: 2001-08-16
PRIOR APPLICATION NUMBER: US 08/276,358
PRIOR FILING DATE: 1994-07-15
PRIOR FILING DATE: 1999-10-09
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PatentIn version 3.0
SEQ ID NO 38
LENGTH: 24
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llarity 100.0%; Pred. No. 3.6;
Conservative 0; Mismatches
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; NAME/KEY: misc feature
; OTHER INFORMATION: Synthetic Oligonucleotide
US-09-931-583-29
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; NAME/KEY: misc feature
; OTHER INFORMATION: Synthetic Oligonucleotide
US-09-931-583-38
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                                       Application US/09931583
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; Sequence 38, Application US/09931583
; Publication No. US20030050263A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence
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                                    Sequence 29, Applica Publication No. US20 GENERAL INFORMATION:
                     US-09-931-583-29
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Sequence 7, Application PC/TUS0002413

GENERAL INFORMATION:

APPLICANT: Virginia Commonwealth University

APPLICANT: BioCache Pharmaceuticals, LLC

TITLE OF INVENTION: Advanced Antigen Presentation Platform

FILE REFERENCE: 05270001ta

CURRENT APPLICATION NUMBER: PCT/US00/02413

CURRENT FILING DATE: 2000-02-02

PRIOR APPLICATION NUMBER: US 60/118,526

PRIOR FILING DATE: 1999-02-02

NUMBER OF SEQ ID NOS: 24

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 7
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GENERAL INFORMATION:
APPLICANT: Virginia Commonwealth University
APPLICANT: BioCache Pharmaceuticals, LLC
TITLE OF INVENTION: Advanced Antigen Presentation Platform
FILE REFERENCE: 05270001ta
CURRENT APPLICATION NUMBER: PCT/US00/02413
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; OTHER INFORMATION: Description of Artificial Sequence
; OTHER INFORMATION: immunostimulating oligonucleotides
PCT-US00-02413-5
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OTHER INFORMATION: immunostimulating oligonucleotides
PCT-US00-02413-7
                                  Sequence 5, Application PC/TUS0002413
; GENERAL INFORMATION:
; APPLICANT: Virginia Commonwealth University
; APPLICANT: BioCache Pharmaceuticals, LLC
; TITLE OF INVENTION: Advanced Antigen Presentation Pla
; FILE REFERENCE: 05270001ta
; CURRENT APPLICATION NUMBER: PCT/US00/02413
; CURRENT FILING DATE: 2000-02-02
; PRIOR APPLICATION NUMBER: US 60/118,526
; PRIOR FILING DATE: 1999-02-02
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: Patentin Ver. 2.1
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GENERAL INFORMATION:
APPLICANT: Coley Pharmaceutical GmbH
APPLICANT: Max-Delbruck Centrum fur Molekulare Medizin;
TITLE OF INVENTION: Methods and Compositions Relating to
TITLE OF INVENTION: Plasmacytoid Dendritic Cells;
FILE REFERENCE: C01041.70029
CURRENT APPLICATION NUMBER: PCT/US02/24410A;
CURRENT FILING DATE: 2002-08-01
PRIOR FILING DATE: 2001-08-01
NUMBER OF SEQ ID NOS: 1
SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
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                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence; OTHER INFORMATION: immunostimulating oligonucleotides PCT-US00-02413-17
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2000-02-02
ER: US 60/118,526
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           PRIOR APPLICATION NUMBER: US 6
PRIOR FILING DATE: 1999-02-02
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 17
LENGTH: 24
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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FOLIAGE SEQUENCE 1999-39-39;

GENERAL INFORMATION:

APPLICANT: Coley Pharmaceutical Group Inc.

APPLICANT: Coley Pharmaceutical GmbH

APPLICANT: Coley Pharmaceutical GmbH

APPLICANT: University of Iowa Research Foundation

TITLE OF INVENTION: Combination Motif Immune Stimulatory Oligonucleotides with Improv.

TITLE OF INVENTION: Activity

FILE REFERENCE: C01039/70063W0 (HCL/AWS)

CURRENT APPLICATION NUMBER: PCT/US02/26468

CURRENT FILING DATE: 2002-08-19

PRIOR FILING DATE: 2001-08-17

PRIOR FILING DATE: 2001-08-17

PRIOR FILING DATE: 2002-07-03

NUMBER OF SEQ ID NOS: 81

SOFTWARE: PatentIn version 3.1

SEQ ID NO 39

LENGTH: 24
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; OTHER INFORMATION: Synthetic Oligonucleotide PCT-US02-24410A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION: Synthetic Oligonucleotide
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APPLICANT: Coley Pharmaceutical GmbH; TITLE OF INVENTION: TOLL-LIKE RECEPTOR 3 SIC; FILE REFERENCE: C01041.70031; CURRENT APPLICATION NUMBER: PCT/US02/31460; CURRENT FILING DATE: 2002-10-03; NUMBER OF SEQ ID NOS: 117; SOFTWARE: Patentin version 3.1
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2002-10-03
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                                               th 100.0%; Similarity 100.0%; 24; Conservative
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Sequence 1, Application PC/TUS0233051A
GENERAL INFORMATION:
APPLICANT: University of Iowa Research Foundation
APPLICANT: University of Iowa Research Foundation
APPLICANT: Coley Pharmaceutical GmbH
APPLICANT: Coley Pharmaceutical Group, Inc.
TITLE OF INVENTION: IMIDAZOQUINOLINE COMPOUNDS
TITLE OF INVENTION: IMIDAZOQUINOLINE COMPOUNDS
FILE REFERENCE: C01039.70065.WO
CURRENT APPLICATION NUMBER: PCT/US02/33051A
CURRENT FILING DATE: 2002-10-15
PRIOR APPLICATION NUMBER: 60/329,208
PRIOR FILING DATE: 2001-10-12
NUMBER OF SEQ ID NOS: 31
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                                                                                       ANTAGONISTS
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Sequence 37, Application PC/TUS0231460
GENERAL INFORMATION:
APPLICANT: Coley Pharmaceutical GmbH
TITLE OF INVENTION: TOLL-LIKE RECEPTOR 3 SIGNALING AGONISTS AND FILE REFERENCE: C01041.70031
CURRENT APPLICATION NUMBER: PCT/US02/31460
CURRENT FILING DATE: 2002-10-03
NUMBER OF SEQ ID NOS: 117
SOFTWARE: Patentin version 3.1
                                                                                      3 SIGNALING AGONISTS AND
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PCT-US02-31460-36
; Sequence 36, Application PC/TUS0231460
; GENERAL INFORMATION:
; APPLICANT: Coley Pharmaceutical GmbH
; TITLE OF INVENTION: TOLL-LIKE RECEPTOR 3 SIGN
; FILE REFERENCE: C01041.70031
; CURRENT APPLICATION NUMBER: PCT/US02/31460
; CURRENT FILING DATE: 2002-10-03
; NUMBER OF SEQ ID NOS: 117
; SOFTWARE: PatentIn version 3.1
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Best Local Similarity 100.0%; Pred. No.
Matches 24; Conservative 0; Mismatch
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Best Local Similarity 100.0%; Pred. No.
Matches 24; Conservative 0; Mismatch
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                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Artificial sequence
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COTHER INFORMATION:
PCT-US02-31460-37
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ENGTH: 24
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PCT-US97-19791-46
; Sequence 46, Application PC/TUS9719791
; GENERAL INFORMATION:
; APPLICANT: University of Iowa Research Foundation
; TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID
; TITLE OF INVENTION: MOLECULES
; NUMBER OF SEQUENCES: 111
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 4225 Executive Square, Suite 1400
; CITY: La Jolla
: STATE: CA
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Mismatches
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MBER: PCT/US97/19791
30-October-1997
                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: La Jolla
STATE: CA
COUNTRY: USA
ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US97/1979:
FILING DATE: 30-October-1997
CLASSIFICATION:
APPLICATION NUMBER: U.S. Serial NG
FILING DATE: October 30, 1996
CLASSIFICATION:
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TELEPHONE: 619/678-5070
TELEFAX: 619/678-5099
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
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NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
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Similarity 100.0%;
24; Conservative C
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Similarity 100.0%;
24; Conservative (
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                                                                                     ; OTHER INFORMATION: Synthetic PCT-US02-33051A-1
  PatentIn version
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                                          TYPE: DNA ORGANISM: Artificial
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INFORMATION FOR
SEQUENCE CHARA
SOFTWARE: Pa
SEQ ID NO 1
LENGTH: 24
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RESULT 12 PCT-US99-09863-77 -888-326a-729.rnpm

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                             APPLICANT: University of Iowa Research Foundation
APPLICANT: University of Iowa Research Foundation
APPLICANT: Ottawa Civic Hospital Loeb Research Institute
APPLICANT: United States of America as represented by the Secreta
TITLE OF INVENTION: Methods for the Prevention and Treatment
TITLE OF INVENTION: of Parasitic Infections and Related Diseases
FILE REFERENCE: C1039/7027WO/HCL
CURRENT APPLICATION NUMBER: PCT/US99/09863
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TITLE OF INVENTION: Stabilized Synthetic Immunogen Delivery
FILE REFERENCE: Immunogen Delivery System
CURRENT APPLICATION NUMBER: PCT/US03/04711A
CURRENT FILING DATE: 2003-04-04
PRIOR APPLICATION NUMBER: US 10/076674
PRIOR FILING DATE: 2002-14
NUMBER OF SEQ ID NOS: 13
SOFTWARE: PatentIn version 3.1
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GENERAL INFORMATION:
APPLICANT: Sokoll, Kenneth K.
TITLE OF INVENTION: Stabilized Synthetic Immunogen Delivery
FILE REFERENCE: Immunogen Delivery System
CURRENT APPLICATION NUMBER: PCT/US03/04711A
CURRENT FILING DATE: 2003-04-04
PRIOR APPLICATION NUMBER: US 10/076674
PRIOR FILING DATE: 2002-02-14
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EARLIER APPLICATION NUMBER: US 60/084,
EARLIER FILING DATE: 1998-05-06
NUMBER OF SEQ ID NOS: 92
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 77
LENGTH: 24
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 PC/TUS9909863
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.
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24; Conservative
Sequence 77, Application GENERAL INFORMATION:
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LENGTH: 24
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Sequence 17, Application PC/TUS0305000A

GENERAL INFORMATION:
APPLICANT: Syntherica Corporation
APPLICANT: Syntherica Corporation
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR SURROGATE
TITLE OF INVENTION: COMPOSITION OF AN IMMUNE RESPONSE AND TRANSPORT
FILE REFERENCE: 35796/259000
CURRENT FILING DATE: 2003-02-19
CURRENT FILING DATE: 2003-02-19
PRIOR APPLICATION NUMBER: 60/358,459
PRIOR FILING DATE: 2002-02-19
NUMBER OF SEQ ID NOS: 25
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 17
LENGTH: 24
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Pred. No. 15;
; Mismatches
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Pred. No.
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 3
LENGTH: 24
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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Similarity 100.0%;
24; Conservative 0;
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ORGANISM: Artificial Sequence
FEATURE:
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Job time: 2756 secs
                                                                                                       INFORMATION:
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PCT-US03-05000A-17
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RESULT
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Sequence 22, Appl
Sequence 77, Appl
Sequence 10, Appl
Sequence 17, Appl
Sequence 65, Appl
Sequence 47, Appl
Sequence 27, Appli
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| cgn2_6/ptodata/2/pna/PCT_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US06_NEW_COMB.seq2:*
| cgn2_6/ptodata/2/pna/US07_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US07_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US08_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*
| cgn2_6/ptodata/2/pna/US10_NEW_COMB.seq1:*
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| cgn2_6/ptodata/2/pna/US10_NEW_COMB.seq6:*
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PCT-US05-02594-2
; Sequence 2, Application PC/TUS0502594
; GENERAL INFORMATION:
; APPLICANT: RAZ, EYAL
; APPLICANT: RACHMILEWITZ, DANIEL
; TITLE OF INVENTION: METHODS FOR TREATING IRRI;
; TITLE OF INVENTION: SYNDROME
; FILE REFERENCE: UCAL-314WO
; CURRENT APPLICATION NUMBER: PCT/US05/02594
; CURRENT FILING DATE: 2005-01-27
; PRIOR FILING DATE: 2004-02-03
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 24
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  TYPE: DNA
ORGANISM: Artificial
FEATURE:
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GENERAL INFORMATION:
APPLICANT: Cohen, Irun R
APPLICANT: Quintana, Francisco
TITLE OF INVENTION: METHODS OF TREATMENT OR PREVENTION OF AUTOIMMUNE DISEASES
TITLE OF INVENTION: CpG-CONTAINING POLYNUCLEOTIDE
FILE REFERENCE: 87534-3900
CURRENT APPLICATION NUMBER: US/10/371,116C
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; APPLICANT: QIAGEN GmbH
; TITLE OF INVENTION: CPG FORMULATIONS AND RELATED METHODS
; FILE REFERENCE: PA098-PCT
; CURRENT APPLICATION NUMBER: US/10/492,002
; CURRENT FILING DATE: 2004-04-06
; PRIOR APPLICATION NUMBER: US 60/327,734
; PRIOR FILING DATE: 2001-10-06
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: Patentin version 3.2
                                                        SCHELLACK, CAROLA
EGYED, ALENA
LINGNAU, KAREN
VENTION: IMMUNOSTIMULATORY OLIGODEOXYNUCLEOTIDES
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OTHER INFORMATION: Primer
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                                                                       APPLICANT: LINGNAU, TITLE OF INVENTION: IMMUNOSTIMULANT: TITLE OF INVENTION: IMMUNOSTIMULANT: FILE REFERENCE: SONN:045US
CURRENT APPLICATION NUMBER: US/10/497,591A
CURRENT FILING DATE: 2004-06-03
PRIOR FILING DATE: 2002-12-05
PRIOR FILING DATE: 2001-12-07
NUMBER OF SEQ ID NOS: 113
COFTWARE: Patentin Ver. 2.1
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             Sequence 22, Application US/10497591A GENERAL INFORMATION: APPLICANT: SCHMIDT, WALTER
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ORGANISM: Artificial Seguence
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APPLICANT: Epstein, David
APPLICANT: Grate, Dilara
APPLICANT: Grate, Dilara
APPLICANT: Keefe, Anthony
APPLICANT: Keefe, Anthony
APPLICANT: Stanton, Martin
APPLICANT: Stanton, Martin
APPLICANT: Stanton, Martin
APPLICANT: Wilson, Charles
TITLE OF INVENTION: Use as Oncology Therapeutics
TITLE OF INVENTION: Use as Oncology Therapeutics
FILE REFERENCE: 23239-558A CIP
CURRENT APPLICATION NUMBER: US/10/873,853A
CURRENT FILING DATE: 2004-04-21
PRIOR APPLICATION NUMBER: 10/762,915
PRIOR APPLICATION NUMBER: 10/762,915
PRIOR APPLICATION NUMBER: 10/762,915
PRIOR APPLICATION NUMBER: 10/718,833
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LOCATION: (1)..(24)
OTHER INFORMATION: phosphorothioate backbone
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R APPLICATION NUMBER: 60/441,357

R FILING DATE: 2003-01-21

R APPLICATION NUMBER: 60/463,095

R FILING DATE: 2003-04-15

R APPLICATION NUMBER: 60/428,102

R FILING DATE: 2002-11-21

R APPLICATION NUMBER: 60/464,179

R FILING DATE: 2003-04-21

R APPLICATION NUMBER: 60/465,055
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APPLICATION NUMBER: 60/512,071
FILING DATE: 2003-10-17
APPLICATION NUMBER: 60/537,201
FILING DATE: 2004-01-16
PRIOR APPLICATION NUMBER: US 60/
PRIOR FILING DATE: 2000-08-25
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin version 3.3
SEQ ID NO 10
LENGTH: 24
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                                                                                                                                  TYPE: DNA ORGANISM: Artificial
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APPLICANT: Tam, Ying K.
APPLICANT: Tam, Ying K.
APPLICANT: Chikh, Ghania
APPLICANT: Sekirov, Laura
APPLICANT: Sekirov, Laura
APPLICANT: Sekirov, Laura
APPLICANT: Brodsky, Irina
APPLICANT: Brodsky, Irina
APPLICANT: Brodsky, Irina
APPLICANT: Brodsky, Irina
APPLICANT: Raney, Sameersingh G.
TITLE OF INVENTION: Methods and Compositions for Enhancing Innate Immunity and
TITLE OF INVENTION: Antibody Dependent Cellular Cytotoxicity
FILE REFERENCE: 33697/US/3 (454892-00056)
CURRENT APPLICATION NUMBER: US 60/616,161
PRIOR APPLICATION NUMBER: US 60/510,799
PRIOR FILING DATE: 2003-10-11
NUMBER OF SEQ ID NOS: 33
SOFTWARE: Patentin version 3.3
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Pred. No. 3.8;
); Mismatches
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Mismatches
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TITLE OF INVENTION: Vaccine
FILE REFERENCE: PG4961
CURRENT APPLICATION NUMBER: US/10/529,931
CURRENT FILING DATE: 2005-03-31
PRIOR APPLICATION NUMBER: GB 0222953.2
PRIOR FILING DATE: 2002-10-03
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 27
LENGTH: 24
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Pred. No.
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US-10-529-931-27
; Sequence 27, Application US/10529931
; GENERAL INFORMATION:
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Sequence 7, Application US/10963999
GENERAL INFORMATION:
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Similarity 100.0%;
24; Conservative 0;
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ORGANISM: Artificial Sequence
FEATURE:
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24; Conservative
Conservative
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LENGTH: 24
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APPLICANT: ASHMAN, Claire
APPLICANT: ELLIS, Jonathan Henry
TITLE OF INVENTION: VACCINE COMPRISING IL-13 AND AN ADJUVANT
FILE REFERENCE: PG4939A
CURRENT APPLICATION NUMBER: US/10/526,151
CURRENT FILING DATE: 2005-02-28
PRIOR APPLICATION NUMBER: GB 0304672.9
PRIOR APPLICATION NUMBER: GB 0304672.9
PRIOR FILING DATE: 2003-02-28
PRIOR FILING DATE: 2002-08-30
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                                Length 24;
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GENERAL INFORMATION:
APPLICANT: ASHMAN, Claire
APPLICANT: ELLIS, Jonathan Henry
TITLE OF INVENTION: IL-13 ELEMENT AND T CELL EPITOPES, AND I FILE REFERENCE: PG4938
CURRENT APPLICATION NUMBER: US/10/526,060
CURRENT FILING DATE: 2005-02-28
PRIOR FILING DATE: 2003-02-28
PRIOR FILING DATE: 2002-08-30
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                             Score 24; DB Pred. No. 3.8; Mismatches
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 65
LENGTH: 24
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SOFTWARE: FastSEQ for Windows Version
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; Sequence 47, Application US/10526151
; GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
                                            Similarity 100
24; Conservative
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24; Conservative
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US-10-526-060-65
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Best Local Similarity
US-10-873-853A-17
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US-11-179-008-108
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; GENERAL INFORMATION:
; APPLICANT: Ahluwalia, Navneet K.
APPLICANT: Efler, Susan M.
; APPLICANT: Davis, Heather L.
; APPLICANT: Davis, Heather L.
; APPLICANT: Vollmer, Joerg
; TITLE OF INVENTION: METHODS AND PRODUCTS RELATED TO
; TITLE OF INVENTION: HEPATITIS C VIRUS INFECTION
; FILE REFERENCE: C1037.70035US02
; CURRENT APPLICATION NUMBER: US/11/183,253
; CURRENT FILING DATE: 2005-07-15
; PRIOR FILING DATE: 2005-04-26
; PRIOR FILING DATE: 2003-10-29
; PRIOR FILING DATE: 2003-10-29
; PRIOR FILING DATE: 2003-10-29
; PRIOR APPLICATION NUMBER: US 60/421,987
                                                                                                            APPLICANT: Abluwalia, Navneet K.
APPLICANT: Efler, Susan M.
APPLICANT: Efler, Susan M.
APPLICANT: Davis, Heather L.
APPLICANT: Vollmer, Joerg
TITLE OF INVENTION: METHODS AND PRODUCTS RELATED TO
TITLE OF INVENTION: HEPATITIS C VIRUS INFECTION
FILE REFERENCE: C1037.70035US02
CURRENT APPLICATION NUMBER: US/11/183,253
CURRENT FILING DATE: 2005-07-15
PRIOR FILING DATE: 2005-04-26
PRIOR FILING DATE: 2003-10-29
PRIOR FILING DATE: 2003-10-29
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Pred. No. 3.8;
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NUMBER OF SEQ ID NOS: 32
SOFTWARE: Patentin version 3.2
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SOFTWARE: PatentIn version 3.2
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US-11-183-253-8
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US-11-183-253-8
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LENGTH: 24
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                                                                              RESULT 12
US-11-179-008-2
i Sequence 2, Application US/11179008
i GENERAL INFORMATION:
APPLICANT: Hartmann, Gunther
APPLICANT: Bratzler, Robert L.
APPLICANT: Bratzler, Robert L.
APPLICANT: Mrieg, Arthur
TITLE OF INVENTION: Methods Related to Immunostimulatory
TITLE OF INVENTION: Moleic Acid-Induced Interferon
FILE REFERENCE: C1039.70044US02
CURRENT APPLICATION NUMBER: US/11/179,008
CURRENT FILING DATE: 2005-07-08
PRIOR APPLICATION NUMBER: US 99/672,126
PRIOR PILING DATE: 2000-09-27
PRIOR PILING DATE: 1999-09-27
PRIOR PILING DATE: 1999-09-27
NUMBER OF SEQ ID NOS: 169
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 24
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Sequence 108, Application US/11179008

GENERAL INFORMATION:

APPLICANT: Hartmann, Gunther

APPLICANT: Bratzler, Robert L.

APPLICANT: Bratzler, Robert L.

APPLICANT: Krieg, Arthur

ITTLE OF INVENTION: Methods Related to Immunostimulatory

ITTLE OF INVENTION: Mucleic Acid-Induced Interferon

FILE REFERENCE: C1039.70044US02

CURRENT APPLICATION NUMBER: US/11/179,008

CURRENT FILING DATE: 2005-07-08

PRIOR FILING DATE: 2000-09-27

PRIOR FILING DATE: 1999-09-27

NUMBER OF SEQ ID NOS: 169

SOFTWARE: FastSEQ for Windows Version 3.0

LENGTH: 24
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US-11-179-008-147

Sequence 147, Application US/11179008

GENERAL INFORMATION:
APPLICANT: Hartmann, Gunther
APPLICANT: Bratzler, Robert L.
APPLICANT: Bratzler, Robert L.
TITLE OF INVENTION: Methods Related to Immunostimulatory
ITILE OF INVENTION: Mucleic Acid-Induced Interferon
FILE REFERENCE: C1039, 700440502
CURRENT APPLICATION NUMBER: US/11/179,008
CURRENT FILING DATE: 2000-09-27
PRIOR FILING DATE: 2000-09-27
PRIOR FILING DATE: 1999-09-27
NUMBER OF SEQ ID NOS: 169
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 147
LENGTH: 24
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NAME/KEY: misc_feature
LOCATION: (1)...(24)
OTHER INFORMATION: Backbone has phosphorothioate linkages.
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; Sequence 2, Application US/11021821
; GENERAL INFORMATION:
; APPLICANT: RAZ, EYAL
; APPLICANT: FIERER, JOSHUA
; TITLE OF INVENTION: IMMUNOGENIC COMPOSITIONS
; TITLE OF INVENTION: USE THEREOF
; FILE REFERENCE: UCAL-311
; CURRENT APPLICATION NUMBER: US/11/021;821
; CURRENT FILING DATE: 2004-12-22
; PRIOR FILING DATE: 2003-12-23
; PRIOR FILING DATE: 2004-04-22
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSEQ for Windows Version 4.0
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Zinnia elegans
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
asterids; campanulids; Asterales; Asteraceae; Asteroideae;
Heliantheae; Zinnia.
1 (bases 1 to 366)
Demura, T., Tashiro, G., Horiguchi, G., Kishimoto, N., Kubo, M.,
Matsuoka, N., Minami, A., Nagata-Hiwatashi, M., Nakamura, K.,
Okamura, Y., Sassa, N., Suzuki, S., Yazaki, J., Kikuchi, S. and
Fukuda, H.
Visualization by comprehensive microarray analysis of gene
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Proc. Natl. Acad. Sci. U.S.A. 99 (24), 1579
Contact: Taku Demura
Morphogenesis Research Group
RIKEN Plant Science Center
1-7-22 Suehirocho, Yokohama, Kanagawa 230-0(
Tel: 81-45-503-9605
Fax: 81-45-503-9605
Fax: 81-45-503-9605
Fax: 81-45-503-9605
Fax: 81-45-503-9605
Fixis clone was obtained at our laboratory.
Seq primer: M13 forward.
Location/Qualifiers

1. 366
                                                                                                                                                                                                                                                                                                                                                                                               /organism="Zinnia elegans"
/mol_type="mRNA"
/cultivar="Canary bird"
/db_xref="taxon:34245"
/clone="Z906"
/tissue_type="mesophyll cell"
/clone_lib="zinnia cultured mes/note="Vector: pGEM-T easy; culdifferentiation-inductive mediu
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AU287428 367 bp mRNA linear EST 04-DEC-2002
AU287428 zinnia cultured mesophyll cell equalized cDNA Zinnia
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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     Gaps
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/clone lib="zinnia cultured mesophyll cell equalized
/note="Vector: pGEM-T easy; cultured in tracheary ele
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This clone was obtained at our laboratory
Seq primer: M13 forward.
Location/Qualifiers
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larity 91.7%;
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E 1 (bases 1 to 1084)

S NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)

C Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Prayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by:Incyte Genomics, Inc.
Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM9255 row: k column: 01
High quality sequence stop: 604.
Location/Qualifiers
1. 1084
/organism="Mus musculus"
/mol_type="mRNA"
/strain="CZECH II"
//strain="CZECH II"
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Rukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.

1 (bases 1 to 669)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: The Cepko Laboratory

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAMI1932 row: a column: 09

High quality sequence stop: 185.
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/clone="IMAGE:4013304"
/tissue_type="tumor, metastatic to mammary"
/lab_host="DH10B"
/clone_lib="NCI_CGAP_Lu30"
/note="Organ: lung; Vector: pCMV-SPORT6; Site_1: Not1;
/note="Organ: lung; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sall; transgenic model WNT-1, expression driven by MMTV-LTR enhancer; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies.
Investigator providing samples: Gilbert Smith, NIH"
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94 Mus musculus cDNA clone IMAGE:5366288 5',
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Pred. No. 1.8e+02;
); Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:10090"
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ilarity 91.7%;
Conservative (
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14-DEC-2001 genomic

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AZ183817

SP 1002 A1 B08 SP6 Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=1002 Col=15 Row=C, genomic survey sequence.

AZ183817.1 GI:8356192
GSS.
Strongylocentrotus purpuratus
Strongylocentrotus purpuratus
Echinoidea; Euechinoidea; Echinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Euechinoidea; Echinoida;
Strongylocentrotidae; Strongylocentrotus.

E 1 (bases 1 to 850)
S Cameron, R.A., Mahairas, G., Rast, J.P., Martinez, P., Biondi, T.R., Wary, G.A., Ettensohn, C.A., Lehrach, H., Britten, R.J., Davidson, E.H.
                                                                                                                                                                                           Brassica oleracea
Brassica oleracea
Brassica oleracea
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Brassica.

1 (bases 1 to 785)
Town, C.D., Van Aken, S., Utterback, T., Koo, H. and Fraser, C.M.
Whole genome shotgun sequencing of Brassica oleracea
Unpublished (2001)
Other GSSs: BOGYN73TR
Contact: Chris Town
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A sea urchin genome project: Sequence scan, virtual map, additional resources
Proc. Natl. Acad. Sci. U.S.A. 97 (17), 9514-9518 (2000)
20402566
10920195
                                                      BH543978 1inear GSS BOGYN73TF BOGY Brassica oleracea genomic clone BOGYN73,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="BOGYN73"
/clone_lib="BOGY"
/note="Vector: pHOS1; Site_1: BBtXI; 2-3 kb
genomic DNA inserted into pHOS1 using BBtXI
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red. No. 4.7e+02;
Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: cdtown@tigr.org

DNA is from a doubled haploid provided

Seq primer: TF

Class: sheared ends.

Location/Qualifiers
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/mol_type="genomic DNA"
/strain="TO1000DH3"
/db_xref="taxon:3712"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9712 Medical Center Drive, Rockville,
Tel: 301-838-3523
Fax: 301-838-0208
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Similarity 91.3%;
21; Conservative
                                                                                                     survey sequence.
BH543978
BH543978.1 GI:1
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Mus musculus (Mouse Mouse)

Mus musculus (Mouse Mouse)

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 936)

S NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Co
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sion driven by
Primer: Oligo
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/clone="IMAGE:5366288"
/tissue_type="retina"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_94"
/note="Organ: eye; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sal1; Cloned unidirectionally; oligo-dT primed.
Average insert size 3.3 kb. Library enriched for full-length clones and constructed by Life Technologies.
Note: this is a NIH_MGC Library."
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/note="Organ: lung; Vector: pCMV-SPORT6; Site ]
Site 2: Sall; transgenic model WNT-1, expression
MMTV-LTR enhancer; Cloned unidirectionally. Pl
dT. Library constructed by Life Technologies.
Investigator providing samples: Gilbert Smith,
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/mol_type="mRNA"
/strain="CZECH II"
/db_xref="taxon:10090"
/clone="IMAGE:4020226"
/tissue_type="tumor, metastatic to mammary"
/lab_host="DH108"
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Pred. No. 2.7e+02;
0; Mismatches 1;
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Pred. No. 2.7e+02;
); Mismatches 1;
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ilarity 95.5%;
Conservative 0
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Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA sequence.
BF142544
BF142544.1 GI:
EST.
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Best Local Similarity
Matches 21; Conser
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Contact: Cameron, RA,

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Hattori,M., Toyoda,A., Noguchi,H., Kojima, T. and Sakaki,Y.

Direct Submission

Loinetted (17-NoV-2003) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);

1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)

Clones are derived from the mouse BAC library MSMg01. For BAC library availability, please contact Kuniya Abe (abe@rtc.riken.jp). Tsukuba Institute of Physical and Chemical Research (RIKEN) 3-1-1 Koyadai, Tsukuba, 305-0074 Japan phone: 81-298-36-9189, fax: 81-298-36-9199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of Physical (GSC);
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Mus musculus molossinus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                          /organism="Strongylocentrotus purpuratus"
/mol_type="genomic DNA"
/db_xref="taxon:7668"
/clone="Plate=1002 Col=15 Row=C"
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urchin, sperm genomic BAC library"
/note="Organ: sperm; Vector: BACe3.6; BAC Clones i
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BAC end Sequences of Library MSMg01
Unpublished
                                                                                                                                                                                                                                                                                                                                                       Length 850;
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/mol_type="genomic DNA"
/sub_species="molossinus"
                                                                                                                                                                                                                                                                                                                                                       Score 19.8; DB 8;
Pred. No. 4.7e+02;
); Mismatches 2
Division of Biology 156-29
California Institute of Technology
Pasadena California 91125, USA
Tel: (626) 395-8421
Fax: (626) 793-3047
Email: acameron@caltech.edu
Plate: 1002 row: C column: 15
Seq primer: SP6
Class: BAC ends
High quality sequence stop: 850.
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/note="Organ: 6
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ilarity 91.3%;
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Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Euechinoidea; Echinocea; Echinoida;
Strongylocentrotus.

I (bases 1 to 613)
Swartzell,S., Wallace,J.C., Poustka,A.J., Livingston,B.T.,
Wray,G.A., Ettensohn,C.A., Lehrach,H., Britten,R.J, Davidson,E.H.
and Hood,L.
A sea urchin genome project: Sequence scan, virtual map, and
additional resources
L Proc. Natl. Acad. Sci. U.S.A. 97 (17), 9514-9518 (2000)
E 20402566
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SP 1040 A2 C02 T7A Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=1040 Col=4 Row=E, genomic survey sequence. AZ199737.1 GI:8394637
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/organism="Strongylocentrotus purpuratus"
/mol_type="genomic DNA"
/db_xref="taxon:7668"
/clone="Plate=1040 Col=4 Row=E"
/clone_lib="Strongylocentrotus purpuratus, puurchin, sperm genomic BAC library"
/note="Organ: sperm; Vector: BACe3.6; BAC CloDH10B"
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Male BAC Library"
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Division of Biology 156-29
California Institute of Technology
Pasadena California 91125, USA
Tel: (626) 395-8421
Fax: (626) 793-3047
Email: acameron@caltech.edu
Plate: 1040 row: E column: 4
Seg primer: T7
Class: BAC ends
High quality sequence stop: 613.
                                                                                                                                         8; DB 9;
4.7e+02;
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Pred. No. 6.9e+02;
); Mismatches 1
                                                                                                                                        Score 19.8; D
Pred. No. 4.7e
0; Mismatches
/db_xref="taxon:57486"
/clone="MSMg01-129F06.TJ"
/sex="male"
/tissue_type="mixture of k
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/lab_host="DH10B"
/clone_lib="CSEQRBN22"
/clone_lib="CSEQRBN22"
/note="Vector: pBluescript II KS(+); Site_l: EcoRI;
Site_2: Not1; This normalized library was—constructed from
1 million independent clones. cDNA synthesis was initiated
using an oligo(dT) primer, using methylated C in the first
strand synthesis reaction. Following this first strand
reaction, double-stranded cDNA was blunted, ligated to
NotI adapters, digested with EcoRI, size-selected, and
cloned into the NotI and EcoRI compatible sites of a
custom modified MCS of the pBluescript (KS+) vector. The
library was normalized in 2 rounds using conditions
adapted from Soares et al., PNAS (1994) 91: 9228-9232 and
Bonaldo et al., Genome Research 6 (1996): 791, except that
                                                                                                              Gallus gallus (chicken)
Gallus gallus
Gallus gallus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
Phasianinae; Gallus.
1 (bases 1 to 705)
Boardman, P.E., Sanz-Ezquerro, J., Overton, I.M., Burt, D.W., Bosch, E., Fong, W.T., Tickle, C., Brown, W.R.A., Wilson, S.A. and Hubbard, S.J.
A Comprehensive Collection of Chicken cDNAs
Curr. Biol. 12 (22), 1965-1969 (2002)
12445392
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                 linear EST 30-NOV-2002
one ChEST343120 5', mRNA
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/tissue_type="Chondrocytes isolated from growth plat
cartilage"
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                 bp mRNA line
gallus cDNA clone
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Pred. No. 6.9e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                        Department of Biomolecular Sciences
University of Manchester Institute of
(UMIST)
                                                                                                                                                                                                                                                                                                                                           Fax: 01612360409
Email: Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Gallus gallus"
/mol_type="mRNA"
/strain="Layer and broiler"
                                                                                                                                                                                                                                                                                                                                                                                                                                        Simon. Hubbard@umist.ac.uk
Location/Qualifiers
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/clone="ChEST343120"
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CSEQRBN22 Gallus
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                                                                                  GI:25969417
                                                                                                                                                                                                                                                                                                                          Contact: Simon Hubbard
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20; Conservative
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AUTHORS
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Heterodera glycines
Heterodera glycines
Heterodera glycines
Eukaryota; Metazoa; Nematoda; Chromadorea; Tylenchida; Tylenchida;
Tylenchoidea; Heteroderidae; Heteroderinae; Heterodera.

Tylenchoidea; Heteroderidae; Heteroderinae; Heterodera.

Tylenchoidea; Heteroderidae; Heteroderinae; Heterodera.

Tylenchoidea; Heteroderidae; Heterodera.

Tylenchoidea; Heteroderidae; Heterodera.

Nocarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J.,
Wylie, T., Dante, M., Marra, M., Hillier, L., Kucaba, T., Theising, B.,
Bowers, Y., Gibbons, M., Ritter, E., Bennett, J., Franklin, C.,
Tsagareishvili, R., Ronco, I., Kennedy, S., Maguire, L., Beck, C.,
Underwood, K., Steptoe, M., Allen, M., Person, B., Swaller, T.,
Harvey, N., Schurk, R., Kohn, S., Shin, T., Jackson, Y., Cardenas, M.,
McCann, R., Waterston, R. and Wilson, R.

The Washington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Tel: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Vector: pAMP1 (Gibco); Site_1: NotI; Site_2: SalI;
The library was constructed by Brandi Chiapelli and Dr.
James McCarter at Washington University, St. Louis. The
cDNA was made by using Dynabead oligo-dT priming (Dynal).
PCR based library using a modified protocol from the SMART
PCR cDNA Synthesis Kit from Clontech. Directionally cloned
into the UDG sites of pAMP1. Nematodes are the OP25
strain. Frozen J2 nematodes were provided by Dr. Rick
Davis of North Carolina State University"
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                                                                               Tylenchina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: est@watson.wustl.edu
The library was constructed by Brandi Chiapelli and Dr. James
McCarter (bchiapel@watson.wustl.edu & jmccarte@watson.wustl.edu)
Washington University, St. Louis. DNA Sequencing by: Washington
University Genome Sequencing Center St. Louis.
High quality sequence stop: 306.
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McCarter,J., Clifton,S., Chiapelli,B., Pape,D., Martin,J.,
Wylie,T., Dante,M., Marra,M., Hillier,L., Kucaba,T., Theising,B
Bowers,Y., Gibbons,M., Ritter,E., Bennett,J., Franklin,C.,
Tsagareishvili,R., Ronko,I., Kennedy,S., Maguire,L., Beck,C.,
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/mol_type="mRNA"
/db_xref="taxon:51029"
/dev_stage="enriched for 2nd stage juveniles"
/lab_host="DH108"
/clone_lib="Heterodera glycines J2 pAMP1 v8 Chiapelli
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Heterodera glycines
Eukaryota; Metazoa; Nematoda; Chromadorea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 19.2; DB 4;
Pred. No. 8.2e+02;
0; Mismatches 3
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llarity 87.5%;
Conservative (
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ORIGIN
Underwood, K., Steptoe, M., Allen, M., Person, B., Swaller, T.,
Harvey, N., Schurk, R., Kohn, S., Shin, T., Jackson, Y., Cardenas, M.,
McCann, R., Waterston, R. and Wilson, R.,
The Washington Univ. Nematode EST Project, 1999
Contact: McCarter JP
The Washington Univ. Nematode EST Project, 1999
Washington Univ. Nematode EST Project, 1999
Washington Univ. School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Tel: 314 286 1810
Fax: 314 286 1810
Email: est@watson.wustl.edu
The library was constructed by Brandi Chiapelli and Dr. James
McCarter (bchiapel@watson.wustl.edu & jmccarte@watson.wustl.edu)
The library was constructed by Brandi Chiapelli and Dr. James
McCarter (bchiapel@watson.wustl.edu & jmccarte@watson.wustl.edu)
Washington University, St. Louis. DNA Sequencing by: Washington
University Genome Sequencing Center St. Louis.
High quality sequence stop: 310.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The library was constructed by Brandi Chiapelli and Dr.
James McCarter at Washington University, St. Louis. The CDNA was made by using Dynabead oligo-dT priming (Dynal). PCR based library using a modified protocol from the SMART PCR cDNA Synthesis Kit from Clontech. Directionally cloned into the UDG sites of pAMP1. Nematodes are the OP25 strain. Frozen J2 nematodes were provided by Dr. Rick Davis of North Carolina State University"
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rvis, K.,
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Malus x domestica
Malus x domestica
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyt
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Rosales; Rosaceae; Malos.
I (bases 1 to 330)
Korban,S., Vodkin,L., Liu,L., Gasic,K., Gonzales,O., Hernandez,R., Aldwinckle,H., Malnoy,M., Carroll,N., Goldsbrough,P., Orvis,K., Clifton,S., Pape,D., Marra,M., Hillier,L., Martin,J., Wylie,T., Dante,M., Theising,B., Bowers,Y., Gibbons,M., Ritter,E., Ronko,I Tsagareishvili,R., Kennedy,S., Waterston,R. and Wilson,R.
Apple Functional Genomics grant - NSF 0321702
Unpublished (2004)
Contact: Schuyler S. Korban
Apple Functional Genomics grant - NSF 0321702
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Tel: 314 286 1810
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/mol_type="mRNA"
/db_xref="taxon:51029"
/db_xref="taxon:51029"
/dev_stage="enriched for 2nd stage juveniles"
/lab_host="DH10B"
/clone_lib="Heterodera glycines J2 pAMP1 v8 Cl
McCarter"
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Pred. No. 8.2e+02;
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Similarity 87.5%;
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                                                                                                          08-AUG-2001
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Heterodera glycines
Heterodera glycines
Bukaryota; Metazoa; Nematoda; Chromadorea; Tylenchida; Tylenchina;
Tylenchoidea; Heteroderidae; Heteroderinae; Heterodera.
Tylenchoidea; Heteroderidae; Heteroderinae; Heterodera.

I (bases 1 to 335)
McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T., Dante, M., Marra, M., Hillier, L., Kucaba, T., Theising, B., Bowers, Y., Gibbons, M., Ritter, E., Bennett, J., Franklin, C., Tsagareishvili, R., Ronko, I., Kennedy, S., Maguire, L., Beck, C., Underwood, K., Steptoe, M., Allen, M., Person, B., Swaller, T., Harvey, N., Schurk, R., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson, R.
The Washington Univ. Nematode EST Project, 1999
                                                                                                                                                                                                                                                                                   Tylenchina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: est@watson.wustl.edu
The library was constructed by Brandi Chiapelli and Dr. James
McCarter (bchiapel@watson.wustl.edu & jmccarte@watson.wustl.edu)
Washington University, St. Louis. DNA Sequencing by: Washington
University Genome Sequencing Center St. Louis.
Putative full length read
The vector to vector length is 336.
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/mol_type="mRNA"
/db_xref="taxon:51029"
/dev_stage="enriched for 2nd stage juveniles"
/lab_host="DH10B"
/clone_lib="Heterodera glycines J2 pAMP1 v8 Chiapelli
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                                                                                                         linear EST 08-AU
Chiapelli McCarter
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The Washington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108,
Tel: 314 286 1800
Fax: 314 286 1810
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CSU-K33r.16J24, genomic survey sequence.
CC084807
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Pred. No. 8.2e+02;
0; Mismatches 3;
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glycines cDNA 5', mRNA
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llarity 87.5%;
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KEYWORDS
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AUTHORS
                                                                RESULT 14
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                    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes; Stegomyia.

1 (bases 1 to 437)

Loftus, B., Shetty, J., Severson, D., Brown, S. and Knudson, D. End sequencing of Aedes aegypti BACs
Unpublished (2003)
Other GSSs: CSU-K33r.16J24.T7
Contact: Brendan Loftus
Department of Eukaryotic Genomics
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                                                                                                                                                                                                                                                                                                             Knudson at
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/clone="CSU-K33r.16J24"
/clone_lib="CSU-K33r"
/note="Vector: pBeloBAC11; Site_1: HindIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
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                                                                                                                                                                                                                                                                                                             and Dennis
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Pred. No. 8.2e+02;
0; Mismatches 3
                                                                                                                                                                                                                                 9712 Medical Center Drive, Rockville, MD
Tel: 301-838-3543
Fax: 301-838-0208
Email: enta@tigr.org
Library was provided by Susan Brown and
State University.
Seg primer: SP6
Class: BAC ends.
Aedes aegypti (yellow fever mosquito)
Aedes aegypti
                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Aedes aegypti
/mol_type="genomic DNA"
/strain="Rexville"
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